FINDINGS FROM THE BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM IN NEW HAMPSHIRE, 2000

Prepared by:

New Hampshire Department of Health and Human Services
Office of Community and Public Health
Division of Epidemiology and Vital Statistics
Bureau of Health Statistics and Data Management

Jeanne Shaheen, Governor
Donald L. Shumway, Commissioner
Kathleen A. Dunn, Director

April 2002

Requests for additional copies should be directed to:

New Hampshire Department of Health and Human Services
Office of Community and Public Health
Division of Epidemiology and Vital Statistics
Bureau of Health Statistics and Data Management
6 Hazen Drive
Concord, NH 03301-6527
603-271-5926 or 1-800-852-3345, ext. 5926
TDD Access 1-800-735-2964
Or emailed to healthstats@dhhs.state.nh.us

An electronic version of this report is available on the BHSDM web site:
www.dhhs.state.nh.us/healthstats.

Suggested citation:
Porter, JBJ. *Findings from the Behavioral Risk Factor Surveillance System in New Hampshire, 2000;* Concord, NH: New Hampshire Department of Health and Human Services, Office of Community and Public Health, Bureau of Health Statistics and Data Management, 2002 (Data from Behavioral Risk Factor Surveillance System, 2000. Survey data, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services.)

ACKNOWLEDEGMENTS

Primary Author:
Josephine B.J. Porter, MPH, NH BRFSS Coordinator, Bureau of Health Statistics and Data Management

2000 NH BRFSS Coordinator:
Larry Powers, MA

ORC Macro, Inc.:
James Dayton, Vice President
Dasha Zentrichova, Senior Programmer
Debra Kaigle, Research Assistant
Ingrid Malmgren, Research Manager
Kimberly Day, Research Manager
Kirsten Ivie, Research Manager
Kisha Baily, Assistant Research Manager
Kristie Hannah, Statistician
Leslyn Hall, Research Manager
Saloma Furlong, Editor

University of New Hampshire:
Alberto Manalo, PhD
Mike Roth

Reviewers:
Jennifer A. Taylor, MPH, Chief, Bureau of Health Statistics and Data Management
Andrew Chalsma, Deputy Bureau Chief, Bureau of Health Statistics and Data Management
ChunFu Liu, MS, MPH, Epidemiologist, Bureau of Health Statistics and Data Management
Janet Horne, Planning Analyst, Bureau of Health Statistics and Data Management
Andrew Pelletier, MD, MPH, Chronic Disease Epidemiologist
Patricia Baum, Manager, Bureau of Health Promotion
Mindy Fitterman, MEd, RD, Nutrition Consultant, Bureau of Health Promotion
Neil Twitchell, Program Supervisor
Lisa Richards, MS, RD, Program Planner, Bureau of WIC Nutrition Services
Susan Knight, MSPH, Assistant State Epidemiologist, NH Tobacco Prevention and Control Program
Elizabeth Peterson, MPH, Epidemiologist, NH Tobacco Prevention and Control Program
Jesse F. Greenblatt, MD, MPH, NH State Epidemiologist
John D. Bonds, Planning Coordinator, Office of Health Planning and Medicaid
Cristina Purdum, Senior Research Analyst, Office of Health Planning and Medicaid
Kathleen A. Dunn, MPH, Director, Office of Community and Public Health
David Reichel, MPH, Planning Analyst, Bureau of Health Statistics and Data Management

This project is supported by CDC grant #U58/CCU102103.

Table of Contents

Introduction

Certain behaviors—such as smoking, physical activity, and fruit and vegetable consumption—can affect health, and programs targeted at promoting a healthy lifestyle can reduce morbidity and mortality from certain causes. Therefore, in 1984 the Centers for Disease Control and Prevention (CDC) began measuring health-related behaviors through the Behavioral Risk Factor Surveillance System (BRFSS) in 15 states across the United States. The BRFSS is a random, anonymous telephone-based survey of adults (aged 18 years and older). Since 1984, the BRFSS has grown to include all 50 states, Washington, D.C., and 3 U.S. territories. Currently, the BRFSS is performed through collaborations between the Behavioral Surveillance Branch (BSB) of the CDC and individual states. State health departments oversee their state's BRFSS with supervision and advice from the BSB. The BSB conducts summary analysis of the data collected by BRFSS nationwide. Each state performs and reports in-depth analysis on its own state-specific data.

BRFSS has been performed in New Hampshire since 1987. This report describes data collected within the 2000 NH BRFSS. In 2000, interviews and data collection for the BRFSS were performed at the University of New Hampshire. This report was a collaborative effort between the New Hampshire Department of Health and Human Services (DHHS), Bureau of Health Statistics and Data Management (BHSDM) and ORC Macro, Inc. ORC Macro, Inc. is the current contractor for BRFSS in New Hampshire as well as 14 other states and territories across the country.

This report contains analysis of most of the questions included on the 2000 NH BRFSS. Some questions are not included for analysis due to poor response rates or question design. In 2000, 1,958 interviews were conducted for the NH BRFSS. Questions are analyzed by sex, age, income, and education levels whenever possible and appropriate. Differences among these groups are highlighted. For certain questions, analysis by other groups is also presented (e.g., HIV education initiation questions by parental status).

What's New in this Report?

- A User's Guide and a Frequently Asked Questions (FAQ) section have been added. These additions are intended to assist readers in understanding the uses and limitations of the data in this report.
- Each section contains question rationale—an explanation of the significance of the topic areas. This should enable readers to use the data more effectively by offering background information relating to the questions that were asked. Moreover, it helps the reader gauge New Hampshire's success in achieving recommendations for disease prevention by thought-leading institutions (such as the American

Cancer Society, the American Diabetes Association, and the National Cancer Institute).

- Measures of progress towards achieving the goals established by the National Healthy People 2010 (HP2010) initiative and the state-level Healthy New Hampshire 2010 (HNH2010) program are also included in this edition of the annual report where relevant.
- Contact information is included for New Hampshire programs working within the topic areas covered by the 2000 NH BRFSS when available.
- Finally, this report includes an evaluation card. The Bureau of Health Statistics and Data Management (BHSDM) is committed to publishing useful reports that empower public health decision-making. The feedback of communities and public health professionals is sought and encouraged. To learn more about the BHSDM's mission and services, please visit BHSDM's web site at www.dhhs.state.nh.us/healthstats.

The Bureau of Health Statistics and Data Management

The Bureau of Health Statistics and Data Management oversees BRFSS question inclusion, sample size determination, and contracts for interviewing and data collection. Beginning in 2001, BHSDM is also responsible for BRFSS data analysis. BRFSS is only one of the many datasets housed in and analyzed by BHSDM; BHSDM also maintains and reports on cancer registry, inpatient and outpatient hospital discharge, and vital records data.

To request more detailed analysis of NH BRFSS data, or to obtain additional copies of this report, contact:

Ann Bennett
Program Assistant
Bureau of Health Statistics and Data Management
Department of Health and Human Services
6 Hazen Drive
Concord, NH 03301-6527

Telephone: 603-271-5926 or 1-800-852-3345, Ext. 5926
Or via e-mail at healthstats@dhhs.state.nh.us.

Further information, as well as an electronic version of this report, is available on the BHSDM web site: www.dhhs.state.nh.us/healthstats.

A Note about Race and Ethnicity

National level data and numerous research studies have shown that race and ethnicity have important effects on health disparities in diseases such as HIV/AIDS, asthma, and diabetes.[1,2,3] The exclusion of racial and ethnic specific analyses in this report should not imply that these disparities do not exist in New Hampshire. However, the NH BRFSS has not yet been able to effectively measure health outcomes in racial and ethnic minorities in New Hampshire. As BRFSS grows—that is, as the sample size of individuals interviewed increases and more people are reliably represented—so will the questions that can be answered regarding health disparities within the state. BHSDM is dedicated to investigating these research questions as the data supports them.

Frequently Asked Questions

1. Who is included in BRFSS?

Because BRFSS is a telephone-based survey of adults, only individuals 18 or older in homes equipped with telephones and who speak English well enough to be interviewed are included.

2. Why do some topic areas and question analyses have no national comparisons?

Some questions are not analyzed at the national level. Individual states often add questions about areas of particular interest to that state. Because these questions are not asked throughout the country, national estimates are not possible. Some questions, despite their national inclusion, are not selected for national analysis. National comparisons for data analyzed in this report are included whenever available and appropriate. The national estimates provided are not calculated by pooling all BRFSS data as a sample of the nation as a whole, but are simply a calculation of the middle value (the median) of all of the individual state-specific estimates. This method gives equal weight to smaller states and bigger states and cannot be relied upon to approximate a national sample.

3. What does the range or 95% confidence interval mean?

A 95% confidence interval (CI) is reported around each reported statistic. Because BRFSS interviews only a sample—and not the entire—population, the exact frequency of any activity for the entire population is unknown; instead the true frequency is estimated using the information from the sample. A 95% CI is the range of values that, with 95% certainty, includes the true value for the entire population. An estimate is only truly useful and applicable if the 95% CI is also considered. When the sample is very small, the 95% CI will be wide, because the small sample interviewed is less likely to accurately represent the whole population.

4. How do I know if differences are "statistically significant?"

As mentioned in Frequently Asked Question #3, the 95% CI generated around analysis of sample data represents the range of values within which the population's true value lies. When comparing two groups on the same health topic (for example, in comparing smoking habits between men and women), the 95% CI for each group should be compared. If the range of values in the 95% CI's do not overlap between two groups, the difference between the groups is "statistically significant." If the 95% CI's do overlap (i.e., if the CI's share any of the same values), the BRFSS did not detect a statistically significant difference. This could mean that in fact no difference exists between the groups, or it could mean that a difference does exist, but was not detected due to the sample size. If very few people were included in the group being considered, the 95% CI will likely be very wide. It is possible that with a better measure of that group—more people in the sample—a more accurate estimate might detect differences between groups.

User's Guide

The overall goal in producing this report is to provide readers the framework for understanding how New Hampshire residents behave in areas such as smoking, physical activity, fruit and vegetable consumption, and use of health care. BRFSS also helps in assessing the prevalence of chronic diseases not measured elsewhere (i.e., asthma, diabetes, and arthritis), and gauging public awareness and perception of important health issues (such as HIV education and radon exposure). The report allows readers to compare New Hampshire with the nation when appropriate and should help direct resources to areas of demonstrated need. Measures of progress towards achieving the goals established by the National Healthy People 2010 (HP2010) initiative and the state-level Healthy New Hampshire 2010 (HNH2010) program are also included where relevant. Contact information for NH-specific programs working within topic areas covered by the 2000 NH BRFSS is also included when available.

It is worthy of note, also, that the data in this report raise questions that could be explored with more research. While it is not in the scope of this report to delve into the reasons why New Hampshire residents behave in certain ways, or why behaviors differ among various groups in New Hampshire, this report is one resource that identifies areas where more in-depth research is warranted.

Data Interpretation

Standard format for reporting BRFSS results within this report is to provide the estimate, followed by the 95% confidence interval (CI), which is often in parenthesis. Many of the tables within this report follow a similar format.

The excerpt from Table 1-2 illustrates the interpretation of the tables in this report. The "Overall" row gives the estimate and 95% CI for the population as a whole. For certain activities, the entire population was not measured (e.g., mammography history was asked only of women); these exceptions are noted at the end of the table when relevant. The percentage of people who reported the activity or behavior in different age, income, and education levels is also presented in tables within this report. Thus, in the example, 65.3% (95% CI: 61.5–69.1) of men in the survey reported their health status as very good or excellent while 61.4% (95% CI: 58.2–64.7) of women reported these ratings. Because values within the 95% CI for men and women's health status rating overlap, the groups are not significantly different from one another.

Example:

Table 1-2. Self-Reported Health Status Excellent or Very Good, by Sex, 2000 NH BRFSS

Demographic	% (95% CI)	Sample Size (N)
Overall	63.3% (60.8-65.8)	1227
Sex		
Male	65.3% (61.5-69.1)	509
Female	61.4% (58.2-64.7)	718

The percentage presented is not the percentage of people among all the people with the specified behavior who have the specified characteristic. In Table 1-2, for example, the values for men and women should not be interpreted to mean that of all the individuals who report their health as very good or excellent, 65.3% were male. Instead, as noted above, 65.3% of men in the survey reported their health status as very good or excellent.

"N" is the total number of people in that answer category, in that level of analysis. In this example, the total number of people who rated their health very good or excellent was 1,227 and the total number of men reporting their health as very good or excellent was 509.

Comparing New Hampshire to the national estimates provided should be approached with caution. The national estimates provided are not calculated by pooling all BRFSS data as a sample of the nation as a whole, but are simply a calculation of the middle value (the median) of all the individual state-specific estimates. This method gives equal weight to smaller states and bigger states and cannot be relied upon to approximate a national sample.

Graphs have varying scales adjusted for the data being displayed. Therefore, it is important to exercise caution when comparing graphs.

BRFSS Methodology

To ensure consistent data collection across all participating states, the CDC has standardized many of the methods used in the BRFSS. Each state and territory must collect data using a sample that is representative of the state's non-institutionalized adult population. This excludes adults in penal, mental, or other institutions; adults living in other group quarters such as dormitories, barracks, convents, or boarding houses (with 10 or more unrelated residents); and adults contacted at their second dwelling unit during a stay of less than 30 days (vacation homes). Individuals living in homes not equipped with telephones are also excluded. In New Hampshire, interviews are only conducted in English, so contacted individuals who do not speak English well enough to be interviewed are also excluded.

Technical features of the BRFSS in New Hampshire include the use of a disproportionate stratified random sample of telephone-equipped households. This involves preparing and maintaining an up-to-date list of all current operating telephone exchanges (three-digit prefixes) in the New Hampshire area code (603), then using cross-reference directories to determine whether the blocks of phone numbers are likely to contain residential numbers. The sample of phone numbers is divided into two strata (likely and unlikely to contain residential numbers) and disproportionately more telephone numbers are called from the likely stratum. This procedure ensures that households with telephone numbers assigned since the publication of the current directories, as well as households with deliberately unlisted numbers, are sampled in their correct proportions. Additional details regarding the technical features of conducting the BRFSS can be found at the BRFSS website maintained by BSB: http://www.cdc.gov/nccdphp/brfss.

Interviewing Procedures

To increase the likelihood of contacting individuals, BRFSS interviews are conducted year-round and at various times of the day. The CDC has designated three calling occasions: weekday days (9–5), weekday evenings (5–9), and weekends. Telephone calls made to a number are rotated throughout the calling occasions. If a call to a sampled telephone number is not answered, the number is repeatedly called at different times of the day, on different days of the week, in a pattern chosen to maximize the likelihood of contact with a minimum number of calls. At least 15 contact attempts, over a minimum five-day period, are made to reach a sampled number. Once a sample number has been successfully contacted with either a refused or completed interview and verified when necessary, the phone number is deleted to maintain the anonymity of the respondents.

Because BRFSS contacts a sample of the entire population, respondents are selected to ensure that the people interviewed are as representative as possible of the entire population. Therefore, respondents are selected randomly by age and gender among all eligible adults in the household after the phone is answered. If interviews were only collected from people who initially answered the phone, people who were impaired and had difficulty getting to the telephone would never be interviewed. Proxy interviews (when one person answers questions for another person) are not conducted in BRFSS. If an adult who is selected at random is unavailable during the survey period, is unable or unwilling to participate, or does not speak English well enough to be interviewed, no interview is conducted in that household.

Response and Efficiency Rates

To collect data that accurately reflects the behavior of the entire population of New Hampshire, it is important to complete interviews with as many people in the sample as possible. Measuring success in this area involves calculating response and efficiency rates among the phone numbers called for the BRFSS. Each phone number that is called receives a "disposition code," which indicates the final result of the call to that number. Disposition codes for New Hampshire, which are standard codes generated by the CDC, are shown in Table 1.

Table 1. Disposition Codes, 2000 BRFSS

BRFSS Disposition Codes
01 = Completed interview
02 = Refused interview
03 = Non-working number
04 = Ring-no-answer
05 = Not a private residence
06 = No eligible respondent at this number
07 = Selected respondent not available during time period
08 = Language barrier
09 = Interview terminated within questionnaire
10 = Line busy
11 = Respondent unable to communicate due to physical or mental impairment

Three rates are typically calculated for BRFSS data: CASRO, Upper Bound, and Lower Bound. The Council of American Survey Research Organizations (CASRO) response rate is a measure of both the efficiency of the sampling frame (the telephone numbers used to conduct the survey) and the cooperation of the respondents. The 2000 NH BRFSS CASRO response rate was 44.8%. The Upper Bound response rate measures respondent cooperation among contacted people and includes only the completed interviews, the refused interviews, and the mid-terminates. The Upper Bound response rate for the NH 2000 BRFSS was 56.7%. The Lower Bound rate is often referred to as the "efficiency rate," because it measures the efficiency of the sample by dividing the number of completed interviews by the entire sample size. The Lower Bound rate for the NH 2000 BRFSS was 10.0%.

Notes about Data Analysis

Weighting

To make the data collected from the sample of the population contacted through BRFSS more representative of the entire adult population of New Hampshire, the data is weighted according to census estimates of the population. Data is weighted to reflect U.S. Census parameters of race, ethnicity, and geographic distribution. Data is also adjusted to match 12 CDC-derived 2000 U.S. Census-estimated age and gender parameters: 18–24, 25–34, 35–44, 45–54, 55–64, and 65 and older. Also among the factors included in the weighting formula is selection probability. Selection probability is a factor when adults live in households served by more than one telephone number, in multi-adult households, and if households are in the unlikely sampling frame. The estimates (percents and 95% CI) reported throughout this report reflect the results of the survey after the application of the weighting formula.

Sample Error and Confidence Intervals

Sampling error (variations from sample to sample) can cause the results of the NH BRFSS to vary from those that would have been obtained with a census of all adults living in telephone-equipped households in New Hampshire. Thus, BRFSS estimates the true value of factors or occurrences by using the sample of completed interviews. A confidence interval (CI) presents the range of values within which the true value lies. The width of the CI placed around the sample figure varies according to several factors. The confidence interval will be wider if a greater level of confidence is used (e.g., 90% versus 95% confidence), if the sample on which the estimate is based is small, or if respondents are very different in their answers to a given question. Every estimate presented in this report also has a 95% CI for interpretation. If the range of values in the 95% CI's do not overlap between two groups, the difference between the groups is "statistically significant." If the 95% CI's do overlap (i.e., if the CI's share any of the same values), the BRFSS did not detect a statistically significant difference. This could mean that in fact no difference exists between the groups, or it could mean that we did not detect one. If very few people were included in the group being considered, the 95% CI will likely be very wide, indicating that the measurement for that group was not very precise. It is possible that with a better measure of that group—more people in the sample—a more accurate estimate may identify differences between groups.

Respondent Characteristics

There were 1,958 total interviews conducted for the 2000 NH BRFSS. The characteristics of individuals interviewed for the 2000 NH BRFSS are shown in Table 2. The table also presents the effect of weighting the data. While 59.6% of people interviewed for the 2000 NH BRFSS were female, the weighted value is 51.5%, which is the percentage of women in the New Hampshire population according to the 2000 census.

Table 2. Respondent Characteristics, 2000 NH BRFSS

Demographic	Unweighted Percent	Weighted Percent
Sex		
Male	40.4	48.5
Female	59.6	51.5
Race and Ethnicity		
White, Non-Hispanic	96.3	95.6
Non-White and/or Hispanic	3.7	4.4
Age		
18-24	5.4	12.8
25-34	17.3	18.7
35-44	27.4	22.2
45-54	20.7	18.4
55-64	12.8	11.9
65 and older	16.4	16.0
Income		
Less than $20,000	12.0	12.0
$20,000-$34,999	25.1	25.7
$35,000-$49,999	19.3	19.3
$50,000 and higher	43.7	43.7
Education		
Less than high school graduate	7.6	8.6
High school diploma or GED	27.9	29.7
Some college or technical school	29.8	29.3
College graduate	34.7	32.4

2000 NH BRFSS Results

Health Status

1. Overall Health Perception

A person's perception of his or her own health, regardless of medical diagnoses, is an important measure of quality of life. Therefore, the BRFSS asked individuals to rate their own health. Overall in New Hampshire, people most frequently rated their health as being very good (39.1%; 36.5–41.6), as shown in Figure 1-1 and Table 1-1.

Figure 1-1. Self-Reported Health Status Rating, 2000 NH BRFSS

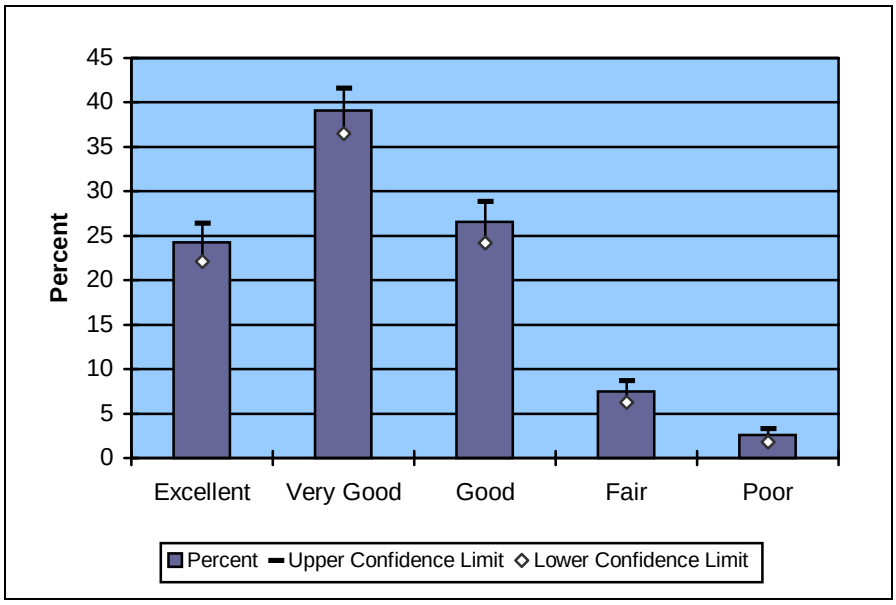


Table 1-1. Self-Reported Health Status Rating, 2000 NH BRFSS

Health Status Rating	% (95% CI)	Sample Size (N)
Excellent	24.3 (22.1-26.4)	500
Very good	39.1 (36.5-41.6)	727
Good	26.6 (24.3-28.9)	511
Fair	7.5 (6.2-8.7)	161
Poor	2.6 (1.8-3.4)	53

Table 1-2 looks more closely at individuals who felt that their health was either excellent or very good by sex, age, income, and educational level. Several differences among the groups are worth highlighting:

- **Age Differences:** The BRFSS showed a general trend of better health perception among younger people. The 65 and older age group had significantly fewer people with excellent or very good health ratings (42.5%; 36.7–48.3) than the four youngest age groups (18–24, 25–34, 35–44, and 45–54). Similarly, significantly fewer people aged 55–64 reported very good or excellent health status (53.1%; 46.4–59.9) when compared to 25–34, 35–44 and 45–54 year olds.
- **Income Differences:** Fewer people with lower incomes rated their health very good or excellent than did people with higher incomes. When comparing income groups, both the less than $20,000 and $20,000–$34,999 groups had significantly fewer people who rated their health very good or excellent than did the higher income groups ($35,000–$49,999 and $50,000 and higher) as shown in Figure 1-2.
- **Education Differences:** The majority of people with a college degree (79.0%; 75.6–82.4) rated their health very good or excellent; this percentage is significantly higher than all other education levels. However, only 39.5% (29.7–49.3) of people with less than a high school education reported very good or excellent health; this is significantly fewer than any other education group.

Figure 1-2. Self-Rated Health Status Excellent or Very Good, by Income, 2000 NH BRFSS

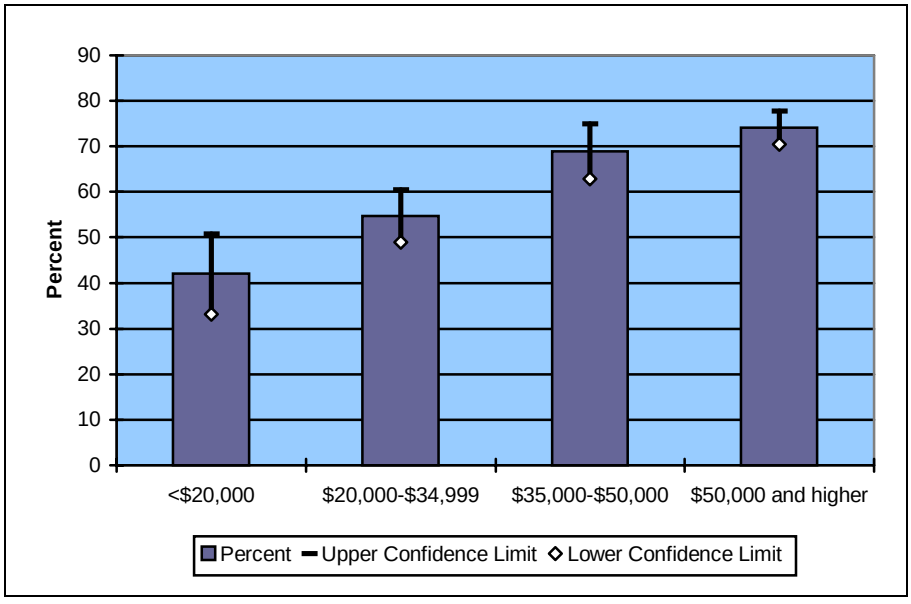


Table 1-2. Self-Reported Health Status Excellent or Very Good, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	63.3 (60.8-65.8)	1227
Sex		
Male	65.3 (61.5-69.1)	509
Female	61.4 (58.2-64.7)	718
Age		
18-24	69.5 (59.8-79.2)	71
25-34	73.7 (68.2-79.2)	247
35-44	69.9 (65.6-74.2)	378
45-54	65.2 (60.1-70.3)	258
55-64	53.1 (46.4-59.9)	129
65 and older	42.5 (36.7-48.3)	137
Income		
Less than $20,000	42.0 (33.2-50.8)	69
$20,000-$34,999	54.7 (49.0-60.4)	222
$35,000-$49,999	68.9 (62.9-74.9)	220
$50,000 and higher	74.1 (70.4-77.8)	543
Education		
Less than high school graduate	39.5 (29.7-49.3)	54
High school diploma or GED	55.7 (50.8-60.6)	290
Some college or technical school	60.6 (56.0-65.3)	353
College graduate	79.0 (75.6-82.4)	529

* Percentages will not add up to 100% because each estimate represents the percentage of respondents in with very good or excellent health in that demographic category (e.g., male or female).

2. Physical Health

Respondents were asked specifically about their perception of their physical health. Nearly two-thirds (64.2%; 61.6–66.7) of individuals experienced no days during the past 30 days in which physical health was not good. However, 5.0% (4.0–5.9) of New Hampshire residents rated their physical health as not good on all of the past thirty days (Figure 2-1 and Table 2-1).

Figure 2-1. Number of Days During Past 30 Days Physical Health Not Good, 2000 NH BRFSS

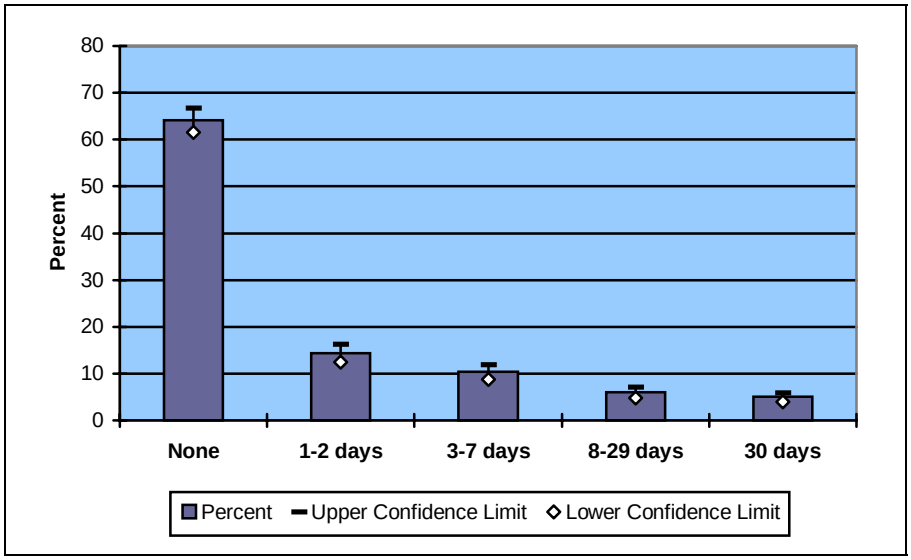


Table 2-1. Number of Days During Past 30 Days Physical Health Not Good, 2000 NH BRFSS

Number of Days	% (95% CI)	Sample Size (N)
None	64.2 (61.6-66.7)	1220
1-2 days	14.4 (12.4-16.3)	272
3-7 days	10.4 (8.8-11.9)	202
8-29 days	6.0 (4.8-7.1)	125
30 days	5.0 (4.0-5.9)	104

Overall for New Hampshire residents, the mean number of days (during the past 30 days) in which physical health was not good was 3.1 (2.7–3.4) days, as shown in Table 2-2. Nationally, the median value for all states' estimates was 3.3 days. Looking more closely at different groups in New Hampshire, important differences between sex, age, and education groups are evident:

- **Sex Differences:** Women experienced a statistically significantly greater number of days during which physical health was not good when compared to men (women: 3.8; 3.4–4.3 days versus men: 2.3; 1.8–2.8 days).

- **Age Differences:** Among people aged 65 and older, the mean of 5.5 (4.2–6.7) days was significantly greater than for the 18–24, 25–34, 35–44, and 45–54 age groups.
- **Income Differences:** Individuals in the lowest income category (less than $20,000 annual household income) experienced a statistically significant greater number of days with poor physical health, 7.1 (5.4–8.8) days, than any other income group. The greatest difference is seen when comparing the lowest income group to the highest income group ($50,000 and higher), who experienced 1.9 (1.5–2.4) days.
- **Education Differences:** Among all education groups, college graduates experienced fewer days (1.5; 1.2–1.8 days), of not good physical health than all other education levels; all of these differences were statistically significant.

Table 2-2. Mean Number of Days During Past 30 Days Physical Health Not Good, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	Mean (95% CI)	Sample Size (N)
Overall	3.1 (2.7-3.4)	1923
Sex		
Male	2.3 (1.8-2.8)	775
Female	3.8 (3.3-4.3)	1148
Age		
18-24	2.5 (1.3-3.7)	104
25-34	2.2 (1.7-2.8)	334
35-44	2.1 (1.6-2.5)	525
45-54	3.0 (2.2-3.8)	398
55-64	4.1 (2.9-5.3)	247
65 and older	5.5 (4.2-6.7)	303
Income		
Less than $20,000	7.1 (5.4-8.8)	190
$20,000-$34,999	3.4 (2.7-4.1)	405
$35,000-$49,999	2.4 (1.6-3.3)	320
$50,000 and higher	1.9 (1.5-2.4)	718
Education		
Less than high school graduate	5.6 (3.7-7.5)	138
High school diploma or GED	3.9 (3.1-4.7)	532
Some college or technical school	3.3 (2.7-3.9)	577
College graduate	1.5 (1.2-1.8)	674

3. Mental Health

Mental health is increasingly recognized as equally as important as physical health, even though the notion of "health" is often taken to mean physical health. In *Mental Health: A Report of the Surgeon General*, the United States Surgeon General's office stated, "mental health is fundamental to health."[4] In a study commissioned by the World Health Organization, researchers from Harvard University reported that mental illness is the second leading cause of disability and premature death in the United States.[5]

According to the 2000 BRFSS, 70.6% (68.2–72.9) of New Hampshire residents experienced no days during the past 30 days in which their mental health was not good. For 3.1% (2.3–3.8), their mental health was not good on all thirty days (Figure 3-1 and Table 3-1).

Figure 3-1. Number of Days During Past 30 Days Mental Health Not Good, 2000 NH BRFSS

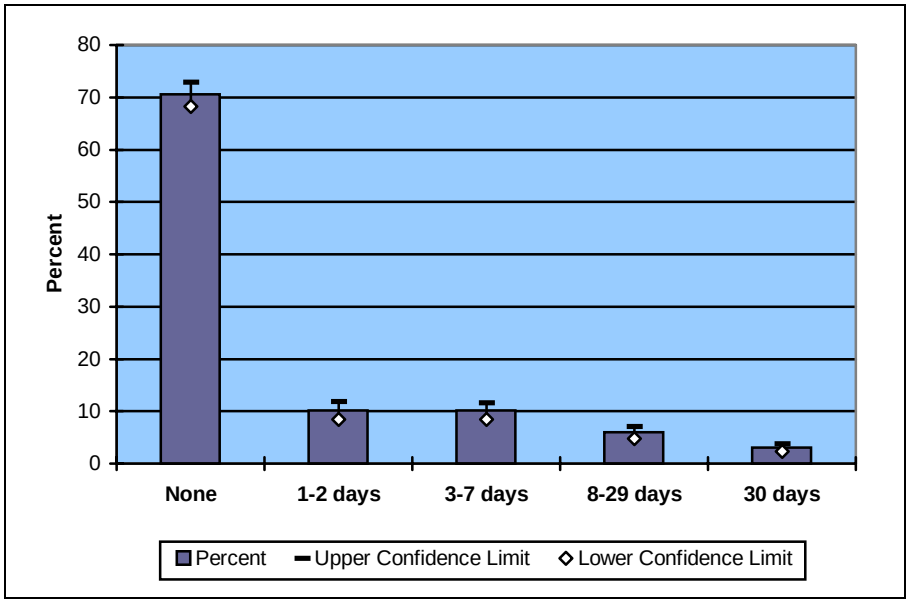


Table 3-1. Number of Days During Past 30 Days Mental Health Not Good, 2000 NH BRFSS

Number of Days	% (95% CI)	Sample Size (N)
None	70.6 (68.2-72.9)	1343
1-2 days	10.2 (8.4-11.9)	182
3-7 days	10.1 (8.5-11.6)	200
8-29 days	6.0 (4.8-7.1)	117
30 days	3.1 (2.3-3.8)	76

Overall, New Hampshire residents experienced a mean of 2.5 (2.2–2.8) days of the past 30 days during which their mental health was not good, as shown in Table 3-2. The median value for all states' estimates was 3.2 days. As is the case with physical health, differences can be seen between sex, age, income, and education groups:

- **Sex Differences:** As with physical health, women experienced a statistically significant greater number of days during the past 30 days during which mental health was not good (3.1; 2.6–3.5 days) when compared to men (1.9; 1.5–2.2 days).
- **Age Differences:** In a reversal of what was seen for physical health, older people in New Hampshire experienced fewer days of poor mental health than did younger individuals. Among people aged 65 and older, the mean of 1.5 (0.9–2.1) days was significantly lower than that for the 25–34 year olds. No other significant differences were seen.
- **Income Differences:** Results for mental health among individuals in the lowest income category (less than$20,000 annual household income) mirrored those for physical health. This income group experienced a significantly greater number of days, 4.5 (3.2–5.9) days, than the highest income groups ($35,000–$49,999 and $50,000 and greater) during which their mental health was not good.
- **Education Differences:** College graduates reported significantly fewer days, 1.7 (1.4–2.0) days, during the past month during which mental health was not good than individuals with less than a high school diploma (3.8; 2.1–5.5 days).

Table 3-2. Mean Number of Days Over Past 30 Days Mental Health Not Good, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	Mean (95% CI)	Sample Size (N)
Overall	2.5 (2.2-2.8)	1918
Sex		
Male	1.9 (1.5-2.2)	774
Female	3.1 (2.6-3.5)	1144
Age		
18-24	3.3 (2.0-4.6)	104
25-34	3.3 (2.5-4.1)	330
35-44	2.4 (1.8-2.9)	522
45-54	2.5 (1.9-3.1)	398
55-64	1.8 (1.1-2.5)	244
65 and older	1.5 (0.9-2.1)	309
Income		
Less than $20,000	4.5 (3.2-5.9)	191
$20,000-$34,999	2.8 (2.1-3.5)	409
$35,000-$49,999	2.1 (1.4-2.7)	314
$50,000 and higher	1.9 (1.5-2.4)	713
Education		
Less than high school graduate	3.8 (2.1-5.5)	143
High school diploma or GED	2.2 (1.7-2.7)	533
Some college or technical school	3.2 (2.6-3.9)	575
College graduate	1.7 (1.4-2.0)	665

For more information about the mental health services in New Hampshire, contact:

The Community Mental Health Services Administration

1-800-852-3345, ext. 5065 (in New Hampshire) or

603-271-5065

4. Activity Limitations

Another important measure of the burden of disease or disability on an individual is the effect the illness has on that person's ability to perform his or her activities. In 2000, 17.6% (15.7–19.6) of respondents in New Hampshire felt that their activities were limited in some way due to a health problem or impairment. As shown in Table 4-1, the most common type of health problem limiting activity was arthritis or rheumatism, which accounted for 17.0% (12.8–21.2) of reported conditions; however, 28.4% (23.0–33.9) of people simply labeled their condition as "other" than the listed options.

Table 4-1. Type of Health Problem Limiting Activity, 2000 NH BRFSS

Type of Condition	% (95%CI)	Sample Size (N)
Arthritis or rheumatism	17.0 (12.8-21.2)	64
Back or neck problem	17.5 (12.7-22.3)	56
Fracture, bone, joint, or walking difficulty	12.7 (8.6-16.7)	41
Heart problem	7.4 (4.2-10.6)	23
Lung or breathing problem	6.0 (3.5-8.5)	20
Other chronic condition (cancer, hypertension, stroke, diabetes)	5.1 (2.4-7.8)	16
Vision or hearing problem	3.2 (1.3-5.0)	12
Depression, anxiety, or emotional problem	2.7 (1.0-4.4)	10
Other	28.4 (23.0-33.9)	88

People's experience with activity limitations due to health problems differed among age, income, and education categories, as shown in Table 4-2.

- **Age Differences:** Significantly fewer people in the three youngest age groups (18–24, 25–34, and 35–44) experienced activity limitations due to health problems than did people in the three older age groupings (45–54, 55–64, and 65 and older). However, the three youngest age groups were not different from one another, nor were the three oldest age groups.
- **Income Differences:** Within the lowest income group, 36.4% (28.4–44.5) of people felt that their activities were limited. This percentage was significantly higher than any other income group.
- **Education Differences:** Among the different education levels, the less than high school graduate group had significantly more people reporting activity limitations (28.6%; 19.8–37.4), than did the college graduates (13.3%; 10.4–16.1).

Table 4-2. Respondents Limited in Any Way, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	17.6 (15.7-19.6)	333
Sex		
Male	16.1 (13.2-19.0)	122
Female	19.0 (16.5-21.6)	211
Age		
18-24	8.0 (2.5-13.5)	9
25-34	10.4 (6.8-14.0)	35
35-44	12.2 (9.0-15.3)	57
45-54	22.3 (17.3-27.2)	83
55-64	27.9 (21.7-34.1)	66
65 and older	29.3 (23.6-35.0)	83
Income		
Less than $20,000	36.4 (28.4-44.5)	74
$20,000-$34,999	18.8 (14.4-23.2)	77
$35,000-$49,999	16.0 (11.4-20.5)	49
$50,000 and higher	12.1 (9.4-14.9)	78
Education		
Less than high school graduate	28.6 (19.8-37.4)	41
High school diploma or GED	17.3 (13.7-20.9)	99
Some college or technical school	19.9 (16.1-23.7)	108
College graduate	13.3 (10.4-16.1)	85

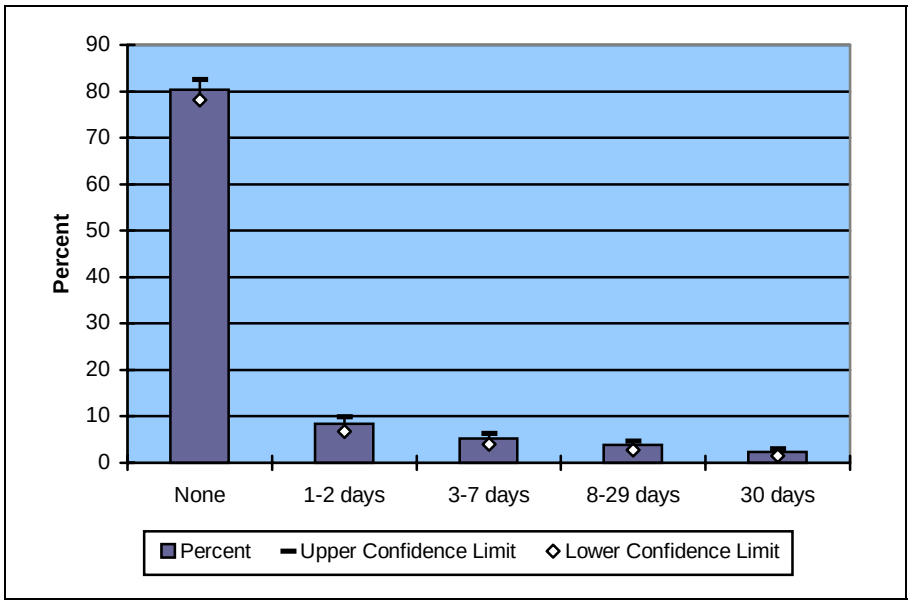
* Percentages will not add up to 100% because each estimate represents the percentage of respondents with activity limitations in that demographic category (e.g., male or female).

While 80.4% (78.2–82.5) of New Hampshire residents experienced no days over the past 30 days in which poor health prevented them from participating in their normal activities, 2.3% (1.5–3.0) reported limitations every day, as shown in Table 4-3 and Figure 4-1. Note that those people who reported no days with poor mental or physical health were counted to have no days during which health limited activity.

Table 4-3. Number of Days During Past 30 Days Poor Health Limited Usual Activities, 2000 NH BRFSS

Number of Days	% (95% CI)	Sample Size (N)
None	80.4 (78.2-82.5)	1544
1-2 days	8.4 (6.8-9.9)	157
3-7 days	5.2 (4.0-6.3)	104
8-29 days	3.8 (2.8-4.7)	82
30 days	2.3 (1.5-3.0)	48

Figure 4-1. Number of Days During Past 30 Days Poor Health Limited Usual Activities, 2000 NH BRFSS



Overall, New Hampshire residents experienced 3.1 (2.6–3.6) days during the past 30 days when poor health restricted their activities, as shown in Table 4-4. The median value among all states' means was 3.5 days. Note that those people who reported no days with poor mental or physical health were counted to have no days during which health limited activity. Among various groups:

- **Sex Differences:** There were no differences between men and women in activity limitations, despite differences in both the physical and mental health measures described above.
- **Age Differences:** Individuals in the 65 and older age group experienced significantly higher numbers of days in which their activities were limited by poor health when compared to the three youngest age categories (18–24, 25–34, and 35–44).
- **Income Differences:** Regarding activity limitations, results for individuals in the lowest income category (less than $20,000 annual household income) mirrored those for physical and mental health. This group experienced a statistically significant greater number of days when their health limited their activities (6.4; 4.2–8.5 days) than higher income groups. Differences between the lowest income and all other income groups were statistically significant.
- **Education Differences:** College graduates reported fewer days during the past month during which poor health limited activities (1.6; 1.1–2.1 days) than individuals in all other education groups. All of these differences were significant.

Table 4-4. Mean Number of Days Poor Health Restricted Activities by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	Mean (95% CI)	Sample Size (N)
Overall	3.1 (2.6-3.6)	1024
Sex		
Male	2.9 (2.1-3.7)	362
Female	3.3 (2.6-3.9)	662
Age		
18-24	2.1 (0.7-3.5)	68
25-34	1.9 (1.2-2.6)	202
35-44	2.1 (1.5-2.8)	284
45-54	3.3 (2.3-4.4)	215
55-64	5.9 (3.5-8.3)	113
65 and older	5.6 (3.8-7.3)	136
Income		
Less than $20,000	6.4 (4.2-8.5)	125
$20,000-$34,999	3.1 (2.1-4.0)	230
$35,000-$49,999	2.4 (1.4-3.5)	156
$50,000 and higher	2.0 (1.4-2.5)	359
Education		
Less than high school graduate	6.0 (3.1-8.8)	75
High school diploma or GED	3.8 (2.8-4.8)	278
Some college or technical school	3.2 (2.3-4.1)	327
College graduate	1.6 (1.1-2.1)	344

HNH2010 Objective: Reduce the percentage of adults who experience activity limitations due to back or neck problems.

Target	2.0%
Baseline (1997)	3.2%
2000 NH BRFSS Measurement	3.0% (95% CI: 2.1-4.0)

Health Care Access and Usage

5. Access to Health Care

The importance of access to medical care in maintaining good health cannot be understated, particularly as the focus of health care continues to shift to emphasizing both treatment and prevention of disease. People who do not have routine access to medical care may not receive early or adequate treatment for illness; they also may not receive information about preventing illness. Defining populations without access to medical care is vital to understanding who is at risk for disease.

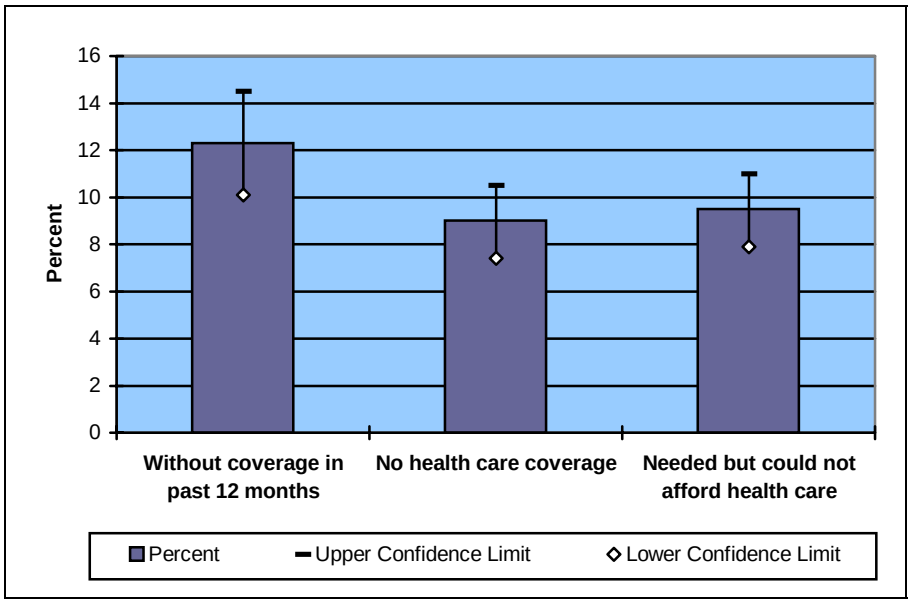
Expense is the most commonly cited reason for individuals being unable to get health care. Because of the increasing cost of health care in the United States, most people need health insurance coverage of some form to make health care affordable. Health insurance status has a direct effect on the ability to access medical care.[6] According to *Health Insurance Coverage and the Uninsured in New Hampshire*, a report from the NH DHHS Office of Health Planning and Medicaid (formerly Office of Planning and Research), 9% of New Hampshire residents under age 65 were uninsured in 1999. This publication reported results of a random, telephone-based survey of 11,781 adults aged 65 and younger who were asked about insurance coverage for their entire family. This study also showed that 77% of insurance coverage was obtained through an individual's employer. Uninsured individuals, however, were not usually unemployed; 73% of the uninsured families had at least one family member working full-time.[7]

Three important measures of health care access from the 2000 NH BRFSS are summarized in Table 5-1 and Figure 5-1: no health care coverage currently, no health care coverage at any time over the past 12 months, and needing to see a doctor but being unable to afford medical care. These areas are discussed in more detail below.

Table 5-1. Summary of Health Care Access Measures, 2000 NH BRFSS

Measure	% (95%CI)	Sample Size (N)
Without coverage in past 12 months	12.3 (10.1-14.5)	150
No health care coverage	9.0 (7.4-10.5)	174
Needed to see doctor but could not afford to, past 12 months	9.4 (7.9-11.0)	188

Figure 5-1. Summary of Health Care Access Measures, 2000 NH BRFSS



Overall, 9.0% (7.4–10.5) of New Hampshire adults had no health care coverage of any kind according to the 2000 NH BRFSS (Table 5-2). Nationally, the median of uninsured status measured by BRFSS for all states' estimates was 11.8%. Differences in the percentage of people reporting no health insurance exist within age, income, and education categories.

- **Age Differences**: Significantly fewer people aged 65 and older (1.8%; 0.4–3.2) reported a lack of health insurance than any other age group.
- **Income Differences**: The percentage of people without health insurance was significantly higher in the two lowest income categories (less than $20,000 and $20,000–$34,999) when compared to higher income groups. Furthermore, with only 1.5% (0.6–2.4) of people uninsured, the $50,000 and greater annual income group had significantly fewer uninsured people than any other income group.
- **Education Differences**: 3.4% (2.0–4.8) of college graduates had no health insurance; this was a significantly lower percentage than in any other education group.

Documenting lack of coverage at a given time may not accurately reflect the history of an individual's health care coverage. Most health care coverage in the United States is linked to employment and individuals may frequently change jobs. When asked about health care coverage over the past 12 months (versus at the time of the interview), 12.3% (10.1–14.5) of New Hampshire residents did not have health care coverage at some point over the past 12 months.

Table 5-2. No Health Care Coverage Currently, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	9.0 (7.4-10.5)	174
Sex		
Male	8.9 (6.4-11.3)	70
Female	9.0 (7.1-10.9)	104
Age		
18-24	14.4 (7.0-21.9)	18
25-34	12.6 (8.4-16.8)	42
35-44	7.9 (5.5-10.3)	47
45-54	7.6 (4.8-10.5)	31
55-64	10.9 (6.5-15.3)	28
65 and older	1.8 (0.4-3.2)	7
Income		
Less than $20,000	23.6 (15.8-31.5)	41
$20,000-$34,999	16.5 (12.3-20.7)	74
$35,000-$49,999	7.3 (3.4-11.1)	19
$50,000 and higher	1.5 (0.6-2.4)	14
Education		
Less than high school graduate	14.6 (8.6-20.6)	25
High school diploma or GED	12.5 (9.0-16.0)	65
Some college or technical school	9.8 (6.8-12.8)	57
College graduate	3.4 (2.0-4.8)	26

* Percentages will not add up to 100% because each estimate represents the percentage of respondents with no health care coverage in that demographic category (e.g., male or female).

HNH2010 Objective: Increase the percentage of persons age 65 and under who have health insurance

Target	100 percent
Baseline (for all people aged less than 65, 1999)	91%
2000 NH BRFSS Measurement (persons 18-64)	89.7% (95% CI: 87.9-91.5)

HP2010 Objective 1-1: Increase the proportion of persons with health insurance.

Target	100 percent
Baseline	83% of persons under age 65 years were covered by health insurance in 1997

Employer-based health care coverage dominated health care payment methods in NH, as reported in Table 5-3. For 60.8% (57.7–63.8) of New Hampshire residents, most of their health care expenses were paid through coverage from their own employer, while 28.5% (25.6–31.3) were from plans from someone else's employer. While this accounts for the great majority of individuals, 6.2% (4.6–7.7) bought a plan (or had a plan bought for them) that was used to pay for most of their health care expenses. Certain government payment sources for health care were also important methods of payment for New Hampshire residents in 2000. Overall, 20.0% (18.0–21.9) of adults had coverage through Medicare, a health plan for those aged 65 and older and certain disabled individuals. (Note having coverage through Medicare is not the same data as is presented Table 5-3, which asked about an individual's primary means of paying for health care.) Also, 13.8% (9.2–18.3) of individuals used Veteran's Administration (VA) facilities for all or part of their health care.

Table 5-3. Source of Health Care Coverage Used to Pay Most of Health Care Expenses, 2000 NH BRFSS

Source of Coverage*	% (95% CI)	Sample Size (N)
Own employer	60.8 (57.7-63.8)	876
Someone else's employer	28.5 (25.6-31.3)	381
Bought plan	6.2 (4.6-7.7)	86
Medicare or Medicaid	2.0 (1.2-2.9)	32
Other	2.5 (1.5-3.5)	33

* Note "None" was also an answer category, but is excluded here because too few people were in that category to create a statistically reliable estimate.

In another important measure of health care access, 9.4% (7.8–11.0) of individuals experienced a time over the past 12 months when they needed to see a health care provider but could not due to cost. Differences among groups are shown in Table 5-4.

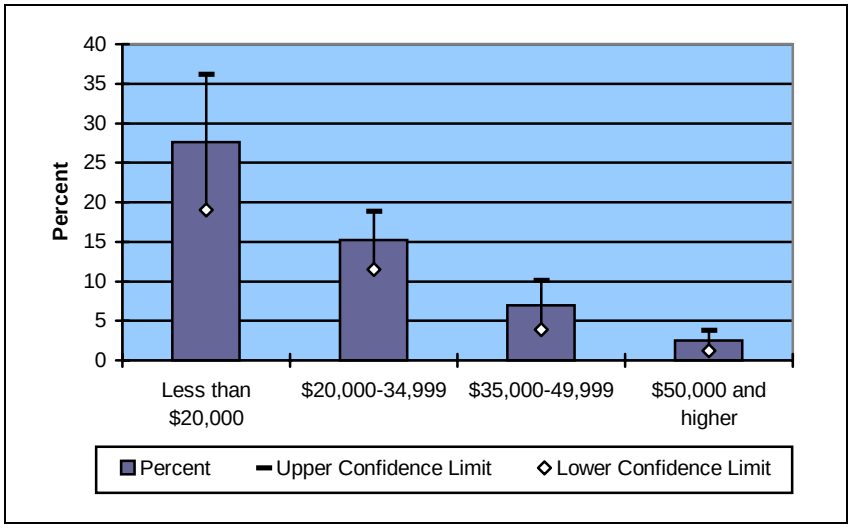
- **Age Differences**: More people in the 25–34 year old group (12.6%; 8.8–16.4) could not afford to see a doctor when they needed to at some point in the past 12 months compared to the 65 and older age group (5.6%; 2.8–8.3).
- **Income Differences**: The percentage of people who could not afford to see a doctor despite their need for medical care decreased with increasing income. Every level of income was significantly different than the level above it in the percentage of people who needed but could not afford to see a doctor (as shown in Figure 5-2).
- **Education Differences**: Compared to the college graduates (4.6%; 2.8–6.4), the three lower education levels (less than high school diploma, high school diploma or GED, and some college or technical school) had significantly higher percentages of people who experienced a time in the past 12 months when they needed to see a doctor but could not afford to.

Table 5-4. Needed but Could Not Afford to See a Doctor in Last 12 Months, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	9.4 (7.8-11.0)	188
Sex		
Male	8.6 (6.2-11.0)	66
Female	10.2 (8.2-12.2)	122
Age		
18-24	15.3 (7.4-23.2)	16
25-34	12.6 (8.8-16.4)	45
35-44	9.5 (6.8-12.1)	56
45-54	7.1 (4.5-9.7)	33
55-64	7.0 (3.7-10.3)	20
65 and older	5.6 (2.8-8.3)	17
Income		
Less than $20,000	27.6 (19.0-36.2)	50
$20,000-$34,999	15.2 (11.5-18.9)	71
$35,000-$49,999	7.0 (3.9-10.1)	23
50,000 and higher	2.5 (1.2-3.8)	18
Education		
Less than high school graduate	17.1 (9.7-24.6)	26
High school diploma or GED	12.5 (9.0-16.1)	68
Some college or technical school	9.5 (6.9-12.1)	63
College graduate	4.6 (2.8-6.4)	31

* Percentages will not add up to 100% because each estimate represents the percentage of respondents who could not afford to see a doctor in that demographic category (e.g., male or female).

Figure 5-2. Needed but Could Not Afford to See a Doctor in Past 12 Months, by Income, 2000 NH BRFSS



6. Health Care Usage

Health care providers not only treat disease, but also convey important messages regarding prevention. Getting individuals to health care providers to receive those messages can be a challenge. Determining who is and who is not seeking routine care is vital to conveying prevention messages to target populations. Routine check-ups present opportunities for disease detection in its early, treatable stages but are also important as opportunities to educate individuals about how to prevent disease. Over 70% (74.4%; 72.2–76.5) of New Hampshire residents received a routine check-up within the previous year; however, for almost 6% (5.9%; 4.7–7.0), it had been over 5 years since their last routine check-up (Figure 6-1 and Table 6-1).

Figure 6-1. Time Since Last Routine Checkup, 2000 NH BRFSS*

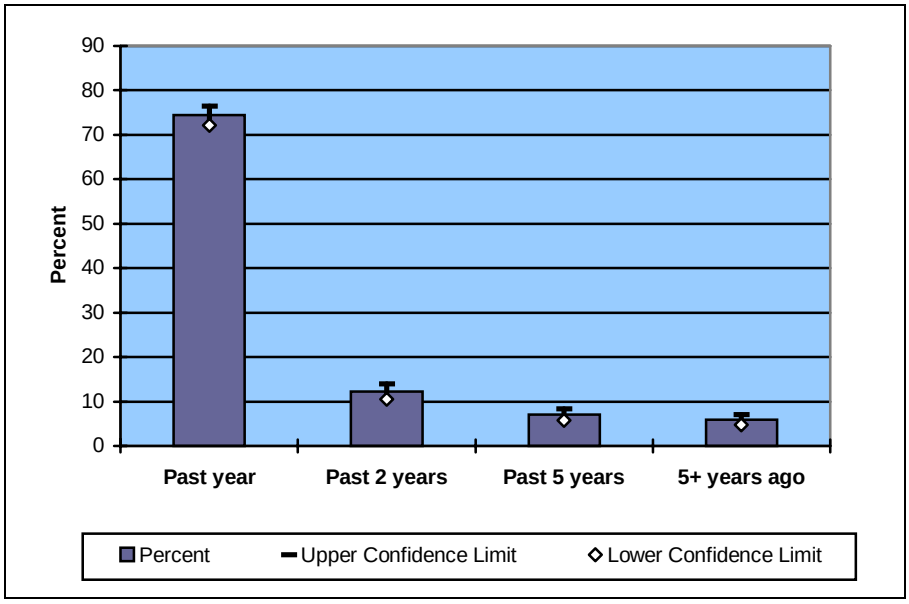


Table 6-1. Time Since Last Routine Check-up, 2000 NH BRFSS*

Time Frame	% (95% CI)	Sample Size (N)
Within past year	74.4 (72.2-76.5)	1450
Within past 2 years	12.3 (10.5-14.0)	227
Within past 5 years	7.1 (5.7-8.4)	141
5 or more years ago	5.9 (4.7-7.0)	118

* Note: “Never” was also an answer category, but there were too few people in that category to create a statistically reliable result.

Table 6-2 presents the breakdown of people who had a checkup within the past year by age, sex, income, and education. No differences in income and education were significant; in fact, the percentages of people who had a checkup within the past year were very similar across these groups. However, there were differences among sex and age groups.

- **Sex Differences**: Significantly more women (80.1%; 77.4–82.5) than men (68.7%; 64.6–72.1) had a checkup within the past year.
- **Age Differences**: There was a general trend of older age groups having more checkups in the past year. The 65 and older age group had the highest percentage of people who had a checkup in the past year (90.0%; 86.6–93.4). This was significantly more than the 18–24, 25–34, 35–44, and 45–54 age groups. Similarly, the 55–64 age group, with 83.9% (78.8–88.9) of people in that group who had a checkup in the past year, was significantly different than the 25–34 and 35–44 year olds.

Table 6-2. Had Check-Up Within Past Year, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	74.4 (72.2-76.5)	1450
Sex		
Male	68.7 (64.6-72.1)	527
Female	80.1 (77.4-82.5)	923
Age		
18-24	71.9 (62.1-81.7)	71
25-34	69.0 (63.4-74.5)	232
35-44	63.1 (58.6-67.5)	340
45-54	75.5 (70.8-80.2)	305
55-64	83.9 (78.8-88.9)	208
65 and older	90.0 (86.6-93.4)	284
Income		
Less than $20,000	76.3 (68.7-83.9)	151
$20,000-$34,999	69.7 (64.4-75.0)	291
$35,000-$49,999	75.5 (69.8-81.2)	243
$50,000 and higher	76.6 (73.2-80.0)	550
Education		
Less than high school graduate	72.4 (64.0-80.8)	105
High school diploma or GED	76.6 (72.3-80.9)	413
Some college or technical school	76.7 (72.8-80.6)	440
College graduate	70.8 (66.8-74.7)	489

*Percentages will not add up to 100% because each estimate represents the percentage of respondents with a check-up in the past year in that demographic category (e.g., male or female).

7. Caregiving

Caregivers are defined as those who provide unpaid care to family members and friends who have health problems that limit their ability to perform normal daily activities. A growing population of elders (aging baby boomers) and the rising costs of medical care have been cited among the reasons for the recent increase in the number of people who are caregivers in the United States. According to the US Department of Health and Human Services' Administration on Aging (AoA), nearly 95% of non-institutionalized individuals with health conditions that require assistance with daily living rely at least in part on caregivers. According to the National Long Term Care Survey by National Institute on Aging, 7 million Americans were caregivers in 1999; of these, 75% were women. Replacing these individuals with paid home care would cost an estimated $45–94 billion annually.[8]

The emotional and physical strain on caregivers is the focus of an increasing body of research; effects include stress, financial and relationship strain, career development limitations, and mental strain. The National Family Caregiver Support Program (NFCSP) from the Older Americans Act Amendments of 2000 was developed specifically to provide support for caregivers. The goal of these programs is to provide support and education for caregivers regarding how to care for the patients and the caregivers themselves. Services for caregivers in New Hampshire are coordinated through ServiceLink, a partnership between the NH DHHS Division of Elderly and Adult Services and many local groups. The ServiceLink Network is a statewide network of community-based resources for elders, adults living with disabilities, and their families. ServiceLink provides information about such issues as available homecare options, caregiver supports, employment issues, financial and retirement planning, active aging, and community involvement.

In New Hampshire, 15.0% (13.1–16.9) of people were caregivers to a friend or relative aged 60 and older during the past month. As shown in Table 7-1, the 2000 NH BRFSS showed no clear trends or major differences in the populations who report being a caregiver during the past month according to sex, age, income, or education.

As shown in Table 7-2, nearly half of New Hampshire residents (44.4%; 41.8–47.0) did not know who they would call "to arrange short or long-term care in the home for an elderly relative or friend who was no longer able to care for themselves." Among those who did know, 16.7% (14.6–18.8) would call a relative or friend and 11.8% (10.1–13.5) would provide care themselves. Less than 25% of the population chose professional options, including home health services, nursing homes, and physicians.

ServiceLink
The New Hampshire Network

For more information about New Hampshire's ServiceLink program:
Call 1-866-634-9412 or visit
www.state.nh.us/servicelink

Table 7-1. Provide Regular Care, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	15.0 (13.1-16.9)	289
Sex		
Male	13.7 (10.6-16.7)	96
Female	16.2 (13.9-18.6)	193
Age		
18-24	15.0 (6.4-23.5)	12
25-34	9.3 (5.9-12.7)	33
35-44	15.9 (12.5-19.4)	83
45-54	16.6 (12.5-20.7)	67
55-64	19.8 (14.5-25.1)	50
65 and older	14.9 (10.4-19.4)	41
Income		
Less than $20,000	20.4 (13.4-27.4)	41
$20,000-$34,999	15.3 (11.0-19.6)	61
$35,000-$49,999	13.5 (9.2-17.8)	42
$50,000 and higher	14.8 (11.9-17.8)	108
Education		
Less than high school graduate	13.8 (7.0-20.6)	19
High school diploma or GED	15.5 (11.6-19.5)	76
Some college or technical school	14.3 (11.0-17.7)	85
College graduate	15.4 (12.4-18.5)	109

* Percentages will not add up to 100% because each estimate represents the percentage of respondents that provided care in that demographic category (e.g., male or female).

Table 7-2. Who to Call to Provide Care, 2000 NH BRFSS

Who To Call	% (95% CI)	Sample Size (N)
Don't know or not sure	44.4 (41.8-47.0)	844
Relative or friend	16.7 (14.6-18.8)	298
Provide care myself	11.8 (10.1-13.5)	226
Home health service	11.3 (9.7-13.0)	236
Nursing home	4.0 (3.0-5.0)	79
Personal physician	3.2 (2.4-4.0)	68
Hospice	2.2 (1.5-2.9)	49
Area agency on aging	2.1 (1.4-2.7)	46
Hospital nurse	1.4 (0.7-2.1)	21
Clergy	0.4 (0.1-0.6)	7
Other	2.5 (1.8-3.2)	56

Health Behaviors

8. Tobacco Use and Restaurant Smoking

Cigarette smoking is one of the best-studied behaviors affecting health and has been linked to a wide variety of diseases and disabilities. According to the American Cancer Society (ACS), smoking is responsible for one in every 5 deaths each year and the leading cause of preventable death in the United States. Cancer is one of the most commonly cited diseases linked to smoking; lung cancer is the most common cancer resulting from smoking. It is estimated that 87% of all lung cancer deaths can be attributed to smoking. Smoking is also considered a major cause of mouth, larynx, pharynx, and esophageal cancers and it is a contributing cause of cervical, kidney, bladder, pancreas, liver, stomach, and colorectal cancers, as well as some forms of leukemia.[9]

Smoking also increases the risk of coronary heart disease and stroke. The U.S. Department of Health and Human Services estimates that 98,000 deaths from heart disease and 24,000 deaths from stroke every year are attributed to smoking.[10] Overall, the estimated national cost of medical expenses for smoking-related illness in the United States is $50–$73 billion.[10]

Lung diseases, including chronic pulmonary obstructive disease (COPD), are also related to smoking. An estimated 90% of COPD deaths are due to smoking.[11] Bronchitis and emphysema are 3 times more likely to develop among smokers than non-smokers. Cigarette smoke is one of the most common triggers for asthma attacks.

Gender-based differences in cigarette use have always existed, with men more likely to smoke than women. While this continues to be true, the prevalence of smoking among women is approaching that of men, and women continue to start smoking. In the report *Women and Smoking* (released March 2001), the U.S. Surgeon General describes the current trends of women and smoking and smoking-related illnesses as an "epidemic."[12] Women may experience complications during pregnancy, early menopause, and decreased fertility as a result of smoking. Smoking during pregnancy is of particular concern because smoking is responsible for at least 20% of low birth weight cases in the United States.[11]

Studies have shown that because of the addictive nature of cigarettes, the younger smokers are when they take up the habit, the more likely they will be to smoke as adults and the harder it is for them to quit. Therefore, young people represent a particularly high-risk group for smoking. Despite this, New Hampshire young people are smoking at alarming rates. Data from the 1999 Youth Risk Behavioral Surveillance System showed that 34.1% of students surveyed (approximately 2,200 students) in grades 9–12 in New Hampshire reported themselves as current smokers.[13]

According to the 2000 NH BRFSS, 25.3% (23.0–27.7) of adults were current smokers in New Hampshire. Current smoker was defined as having smoked at

least 100 cigarettes in their lifetime and currently smoking. The median of all states' estimates for current smokers was 23.2% in 2000. Overall in New Hampshire, 53.2% (47.4–59.1) of current daily smokers reported that they had seriously attempted to quit smoking. Table 8-1 presents the breakdown of current smokers in New Hampshire by age, sex, income, and education.

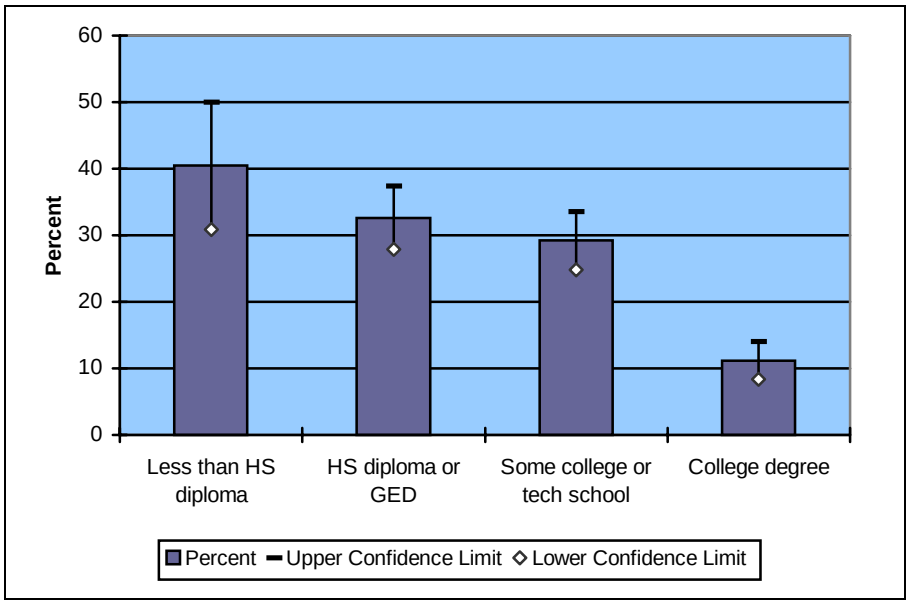
- **Age Differences**: There was a general trend of younger people smoking more frequently than older individuals. Several significant differences between age groups are shown in Table 8-1.
- **Income Differences**: The $50,000 income group had the smallest percentage of smokers with 19.7% (16.2–23.3); this percentage was significantly lower than all other income groups.
- **Education Differences**: Similarly, 11.2% (8.4–14.0) of college graduates were current smokers; this was significantly less than all other education levels, as shown in Figure 8-1.

Table 8-1. Current Smokers, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	25.3 (23.0-27.7)	489
Sex		
Male	27.0 (23.3-30.8)	204
Female	23.7 (20.9-26.6)	285
Age		
18-24	38.9 (28.3-49.5)	41
25-34	30.3 (24.8-35.9)	100
35-44	28.4 (24.2-32.6)	150
45-54	22.0 (17.6-26.3)	96
55-64	18.5 (13.4-23.7)	53
65 and older	13.4 (9.6-17.3)	47
Income		
Less than $20,000	34.2 (25.6-42.7)	68
$20,000-$34,999	28.5 (23.7-33.3)	132
$35,000-$49,999	30.1 (24.6-35.6)	92
$50,000 and higher	19.7 (16.2-23.3)	131
Education		
Less than high school graduate	40.5 (30.9-50.0)	62
High school diploma or GED	32.6 (27.9-37.4)	178
Some college or technical school	29.2 (24.8-33.6)	170
College graduate	11.2 (8.4-14.0)	78

* Percentages will not add up to 100% because each estimate represents the percentage of respondents that were current smokers in that demographic category (e.g., male or female).

Figure 8-1. Current Smokers, by Education, 2000 NH BRFSS



For more information about how to get help for smoking cessation
in New Hampshire, contact:

NH Tobacco Prevention and Control Program
1-800-852-3345, ext. 6891 (in New Hampshire) or
603-271-6891

HP2010 Objective 27-1: Reduce tobacco use by adults

Target	12%
Baseline	24% of adults aged 18 years and older reported smoking in 1998

HP2010 Objective 27-5: Increase smoking cessation attempts by adult smokers.

Target	75%
Baseline	41% of adult smokers aged 18 years and older stopped smoking for one day or longer because they were trying to quit in 1998.

Restaurant smoking

Individuals who breathe second-hand cigarette smoke, also known as Environmental Tobacco Smoke (ETS), can suffer ill health effects from that smoke. ETS is classified by the Environmental Protection Agency (EPA) as a Group A carcinogen—meaning that it is a substance recognized as causing cancer in humans. One widely cited study of food service workers found a 50% increase in lung cancer among food service workers when compared to the general population. ETS exposure levels were up to 2.0 times higher in restaurant workers when compared to office workers.[14]

The 2000 NH BRFSS included questions to assess New Hampshire residents' opinions regarding restaurant smoking. The majority of New Hampshire residents (72.3%; 69.8–74.8) requested non-smoking seating when they ate out. Additionally, 87.0% (85.1–88.9) of people would not change their frequency of dining out if restaurants were completely smoke-free (Table 8-2). Nearly all NH residents believed that smoking in restaurants should be restricted in some way with 50.9% (48.2–53.6) indicating that smoking should not be allowed at all and 47.4% (44.7–50.1) saying it should be permitted in designated areas only, as shown in Table 8-3 and Figure 8-2. Almost half (45.3%; 42.6–48.0) of people believed restaurant smoking should be restricted by local, state, or federal legislation (Table 8-4).

Table 8-2. Anticipated Frequency of Dining Out in Smoke-Free Restaurants, 2000 NH BRFSS

If restaurants were completely smoke-free, would you eat out…	% (95% CI)	Sample Size (N)
About the same	87.0 (85.1-88.9)	1574
More often	7.9 (6.4-9.4)	140
Less often	5.1 (3.8-6.4)	90

Table 8-3. Opinion About Restaurant Smoking Restrictions, 2000 NH BRFSS

Should smoking in restaurants be…	% (95% CI)	Sample Size (N)
Allowed without restriction	1.7 (1.0-2.4)	29
Permitted only in designated areas	47.4 (44.7-50.1)	827
Not allowed at all	50.9 (48.2-53.6)	935

Figure 8-2. Opinion About Restaurant Smoking Restrictions, 2000 NH BRFSS

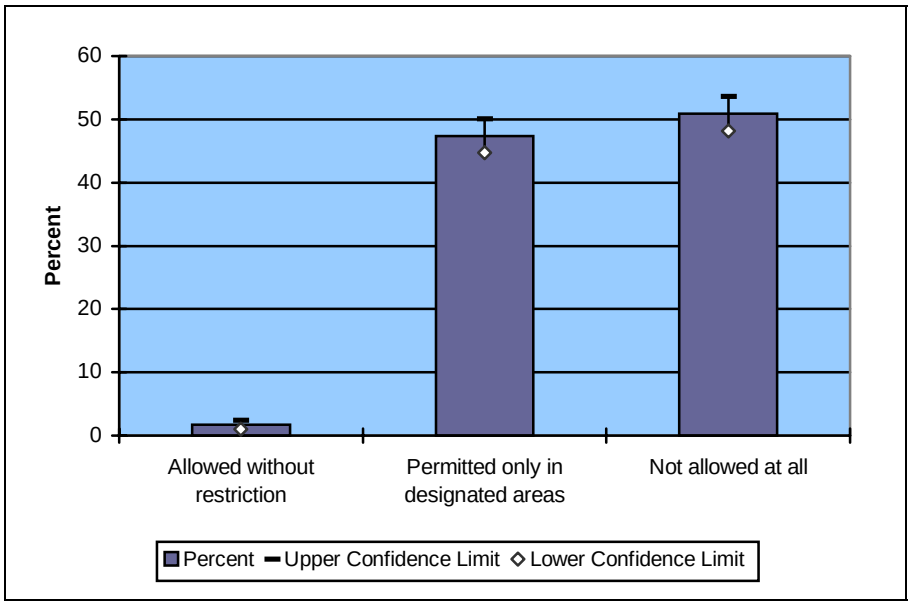


Table 8-4. Opinion About Restaurant Smoking Legislation, 2000 NH BRFSS

Legislation Opinion	% (95% CI)	Sample Size (N)
Yes, by state law	19.9 (17.8-22.0)	366
Yes, by local ordinance	6.4 (5.2-7.6)	127
Yes, by federal law	19.0 (16.9-21.0)	366
No	48.5 (45.8-51.2)	844
Don't know or not sure	6.3 (5.0-7.5)	122

For more information about smoking in New Hampshire restaurants, including a list of smoke-free facilities, visit: http://www.nhlung.org/

9. Weight and Weight Control

One of the most important ways individuals can control their own health is through weight control. Being overweight or obese increases the risk of morbidity from hypertension, high cholesterol, coronary heart disease, stroke, gallbladder disease, osteoarthritis, diabetes, respiratory difficulties, and some cancers. For overweight and obese people, losing weight at any age can reduce the risk of developing these diseases.[15]

Overweight or obesity status is typically determined by calculating a person's Body Mass Index (BMI). BMI is a person's weight (in kilograms) divided by their height (in meters) squared. For BRFSS, individuals are asked their height and weight and their BMI is calculated from that self-reported information. Individuals are then classified as overweight if their BMI is between 25–29.9 and obese if their BMI exceeds 30.0.

Overall, 36.5% (33.9–39.1) of people in New Hampshire were overweight and 18.1% (16.0–20.2) were obese according to the 2000 NH BRFSS (Figure 9-1 and Table 9-1). Therefore, 54.6% (51.9–57.3) of people in NH were either overweight or obese. The median of all states' estimates on this measure in the 2000 BRFSS was 57.1%.

Figure 9-1. Overweight and Obesity Status, 2000 NH BRFSS

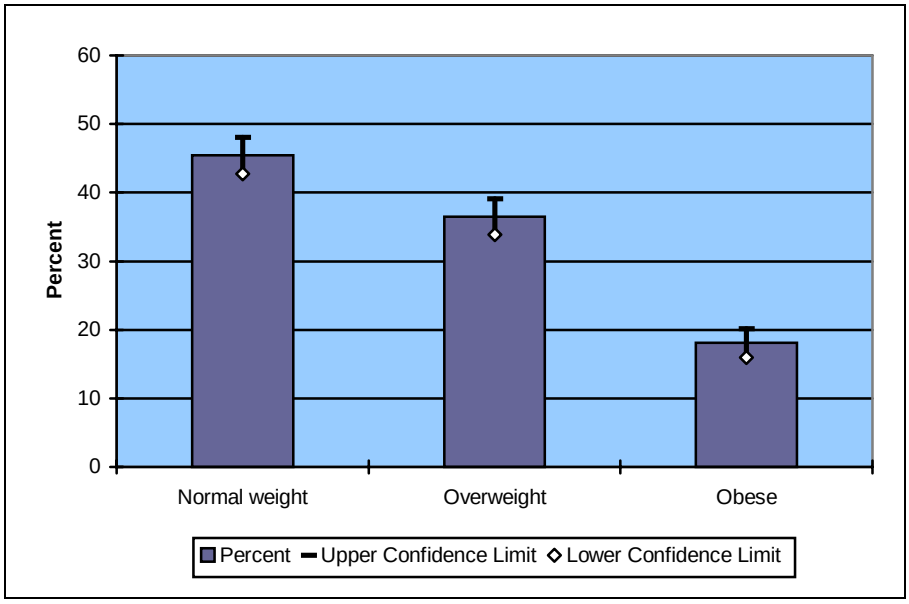


Table 9-1. Overweight and Obesity Status, 2000 NH BRFSS

Status	% (95% CI)	Sample Size (N)
Not overweight or obese	45.4 (42.7-48.1)	876
Overweight	36.5 (33.9-39.1)	650
Obese	18.1 (16.0-20.2)	337

Differences in the prevalence of overweight and obesity existed among sex and age categories, as reported in Table 9-2.

- **Sex Differences**: More men were overweight or obese (66.4%; 62.5–70.3) than women (42.8%; 39.4–46.2).
- **Age Differences**: The prevalence of overweight or obesity was highest among the 55-64 year old age group (71.5%; 65.3–77.6). This group had a significantly higher prevalence than all other age groups.

Questions on the 2000 NH BRFSS included assessment of individuals' weight loss attempts. Almost 50% (46.5%; 42.2–50.8) of overweight people reported that they were trying to lose weight; 13.3% (10.5–16.2) had been advised to lose weight by a health care professional. Among obese people, 67.4% (61.3–73.5) were trying to lose weight and 33.3% (27.3–39.4) had been advised to lose weight by a health professional.

Table 9-2. Overweight or Obese, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	54.6 (51.9-57.3)	987
Sex		
Male	66.4 (62.5-70.3)	519
Female	42.8 (39.4-46.2)	468
Age		
18-24	36.5 (25.2-47.8)	33
25-34	52.5 (46.4-58.7)	152
35-44	55.4 (50.8-60.1)	262
45-54	59.0 (53.6-64.5)	209
55-64	71.5 (65.3-77.6)	164
65 and older	53.5 (47.6-59.5)	166
Income		
Less than $20,000	51.8 (43.1-60.6)	103
$20,000-$34,999	57.3 (51.7-62.9)	214
$35,000-$49,999	58.3 (52.2-64.4)	166
$50,000 and higher	57.1 (53.0-61.3)	383
Education		
Less than high school graduate	61.4 (51.4-71.4)	87
High school diploma or GED	57.2 (52.1-62.3)	283
Some college or technical school	52.8 (47.9-57.6)	295
College graduate	52.1 (47.6-56.6)	322

* Percentages will not add up to 100% because each estimate represents the percentage of respondents that were overweight or obese in that demographic category (e.g., male or female).

HNH2010 Objective: Reduce the prevalence of overweight and obesity.

Target	40 percent
Baseline	50% among adults in 1999.
2000 NH BRFSS Measurement	54.6% (95% CI: 51.9–57.3)

HP2010 19-1: Increase the proportion of adults who are at a healthy weight.

Target	60 percent
Baseline	42 percent of adults aged 20 years and older were at a healthy weight (defined as a body mass index [BMI] equal to or greater than 18.5 and less than 25) in 1988–94*

HP2010 19-2: Reduce the proportion of adults who are obese.

Target	15 percent
Baseline	23 percent of adults aged 20 years and older were identified as obese (defined as a BMI of 30 or more) in 1988–94*

* Definitions of BMI overweight and obese categories have changed since the calculation of baseline measures for HP2010.

To Calculate BMI
BMI = weight (kg) / height^2 (m^2) Normal weight BMI: less than 25.0 Overweight BMI: 25.0–29.9 Obese BMI: 30.0 and higher
For more information, visit the BMI Calculator at the National Heart, Lung, and Blood Institutes Web site at: www.nhlbisupport.com/bmi/bmicalc.htm or **The CDC's web site at**: www.cdc.gov/nccdphp/dnpa/bmi/bmi-adult.htm

10. Physical Activity

The health benefits of physical activity are numerous and their effect on health cannot be overemphasized. Even moderate levels of activity can improve health. The current recommendation from the President's Council on Physical Fitness and Sports is that people of all ages should participate in a minimum of 30 minutes of physical activity of moderate intensity (e.g., brisk walking) on most, if not all, days of the week.[16]

In its report *Physical Activity and Health* published in 1996, the U.S. Surgeon General stated that physical activity:[16]

- Reduces the risk of dying prematurely.
- Reduces the risk of dying prematurely from heart disease.
- Reduces the risk of developing diabetes.
- Reduces the risk of developing high blood pressure.
- Helps reduce blood pressure in people who already have high blood pressure.
- Reduces the risk of developing colon cancer.
- Reduces feelings of depression and anxiety.
- Helps control weight.
- Helps build and maintain healthy bones, muscles, and joints.
- Helps older adults become stronger and better able to move about without falling.
- Promotes psychological well-being.

Three measures of physical activity are typically reported from BRFSS data. Individuals are asked a series of questions about their participation in physical activities. Based on their responses regarding the type and frequency of various types of physical activity, individuals are classified according to their participation in:

- Any leisure time physical activity.
- Regular and sustained physical activity: engage in physical activity for 30 minutes or more, 5 or more times a week.
- Regular and vigorous activity: engage in 20 or more minutes of physical activity at 50% capacity (involving large muscle groups), 3 or more times weekly.

All three of these physical activity measures among New Hampshire residents are presented in Figure 10-1 and Table 10-1. The more vigorous the physical activity, the less likely people are to engage in it. Only 26.7% (24.4–28.9) of people in New Hampshire participate in no leisure time activity at all. The median of the estimates for all states in 2000 was 26.9%. With 78.2% (76.0–80.3) of residents not engaging in regular and sustained physical activity, New

Hampshire matched the median of all states' estimates. The percentage of New Hampshire residents who did not engage in regular and vigorous physical activity was lower (83.6%; 81.8–85.5) than the median of all states' estimates in 2000, which was 86.0%.

Figure 10-1. Do Not Participate in Various Physical Activity Measures, 2000 NH BRFSS

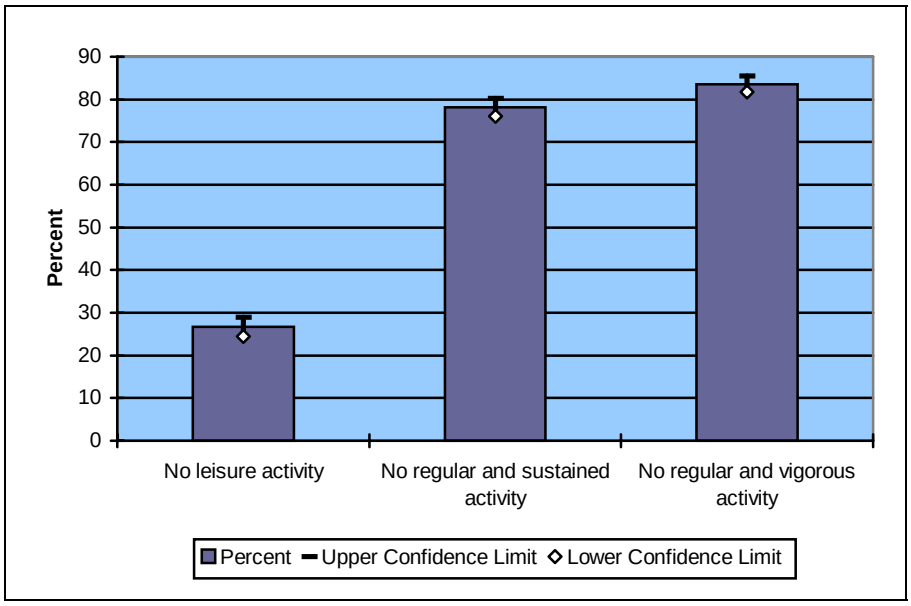


Table 10-1. Do Not Participate in Various Physical Activity Measures, 2000 NH BRFSS

Participates in	% (95% CI)	Sample Size (N)
No leisure time activity	26.7 (24.4-28.9)	523
No regular and sustained activity	78.2 (76.0-80.3)	1524
No regular and vigorous activity	83.6 (81.8-85.5)	1619

Differences in the physical activity levels can be seen among different groups, as shown in Tables 10-2, 10-3, and 10-4.

- **Age Differences**: More people aged 65 and older (37.0%; 31.4–42.7) lacked *any leisure time physical activity* than people in the 18–24, 25–34, and 35–44 age groups. Also, significantly fewer people in both the 35–44 and 45–54 age groups participated in *regular and vigorous activity* when compared to the 25–34 age group.
- **Income Differences**: Significantly more people in the less than $20,000 annual income did not participate in *any leisure time physical activity* (38.6%; 30.2–47.0) than people in the $35,000–$49,999 and $50,000 and greater income groups. Also, significantly fewer people with an annual income of $20,000–$34,999 participated in *regular and vigorous activity* compared to people in the $50,000 annual income group.

- **Education Differences**: Significantly more college graduates participated in *leisure time activity* than all other education levels. For *physical and sustained activity*, college graduates were significantly different (with more people engaging in regular and sustained activity) than people in the less than high school group. Continuing the trend, significantly more college graduates engaged in *regular and vigorous activity* than did people in any other education level.

Table 10-2. Do Not Participate in Leisure Time Activity, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	26.7 (24.4-28.9)	523
Sex		
Male	25.6 (21.9-29.2)	188
Female	27.7 (24.9-30.5)	335
Age		
18-24	19.0 (9.9-28.2)	18
25-34	22.4 (17.7-27.1)	81
35-44	23.8 (19.7-27.8)	122
45-54	29.6 (24.3-34.9)	113
55-64	27.9 (21.7-34.2)	66
65 and older	37.0 (31.4-42.7)	119
Income		
Less than $20,000	38.6 (30.2-47.0)	84
$20,000-$34,999	33.8 (28.3-39.3)	132
$35,000-$49,999	24.4 (19.3-29.4)	85
$50,000 and higher	18.1 (14.8-21.4)	126
Education		
Less than high school graduate	48.1 (38.3-57.8)	75
High school diploma or GED	35.7 (30.8-40.5)	192
Some college or technical school	24.6 (20.7-28.5)	153
College graduate	14.5 (11.6-17.4)	101

* Percentages will not add up to 100% because each estimate represents the percentage of respondents with no leisure time activity in that demographic category (e.g., male or female).

HP2010 Objective 22-1: Reduce the proportion of adults who engage in no leisure-time physical activity.

Target	20 percent
Baseline	40 % of adults aged 18 years and older engaged in no leisure-time physical activity in 1997

Table 10-3. Do Not Participate in Regular and Sustained Physical Activity, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	78.2 (76.0-80.3)	1524
Sex		
Male	78.9 (75.7-82.1)	615
Female	77.4 (74.7-80.2)	909
Age		
18-24	76.3 (67.5-85.1)	76
25-34	76.5 (71.3-81.7)	255
35-44	78.8 (75.1-82.6)	421
45-54	81.4 (77.2-85.6)	325
55-64	75.0 (69.2-80.8)	186
65 and older	79.1 (74.4-83.9)	251
Income		
Less than $20,000	82.6 (75.7-89.5)	167
$20,000-$34,999	81.5 (77.2-85.7)	338
$35,000-$49,999	77.3 (71.9-82.7)	245
$50,000 and higher	76.1 (72.7-79.4)	543
Education		
Less than high school graduate	86.3 (79.3-93.3)	130
High school diploma or GED	77.7 (73.5-81.9)	428
Some college or technical school	81.3 (77.6-85.0)	473
College graduate	73.5 (69.9-77.1)	490

* Percentages will not add up to 100% because each estimate represents the percentage of respondents with no regular and sustained activity in that demographic category (e.g., male or female).

HNH2010 Objective: Increase the percentage of persons who engage in physical activity for 30 minutes or more 5 or more times a week.

Target	50 percent
Baseline	24% for adults in 1998
2000 NH BRFSS Measurement	21.8% (95% CI: 19.7-23.9)

HP2010 Objective 22-2: Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day.

Target	30 percent
Baseline	15 % of adults aged 18 years and older engaged in moderate physical activity for at least 30 minutes 5 or more days per week in 1997

Table 10-4. Do Not Participate in Regular and Vigorous Physical Activity, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	83.6 (81.8-85.5)	1619
Sex		
Male	86.0 (83.5-88.5)	662
Female	81.4 (78.8-84.0)	957
Age		
18-24	89.1 (83.5-94.7)	95
25-34	89.2 (85.5-93.0)	297
35-44	80.8 (77.3-84.4)	427
45-54	79.1 (74.4-83.7)	320
55-64	83.5 (78.4-88.5)	208
65 and older	81.9 (77.4-86.5)	261
Income		
Less than $20,000	86.2 (81.0-91.5)	177
$20,000-$34,999	89.8 (86.7-92.9)	371
$35,000-$49,999	84.0 (79.2-88.7)	267
$50,000 and higher	79.8 (76.7-82.9)	562
Education		
Less than high school graduate	91.6 (85.9-97.2)	138
High school diploma or GED	88.3 (85.5-91.1)	473
Some college or technical school	84.1 (80.9-87.4)	492
College graduate	76.9 (73.0-80.7)	514

* Percentages will not add up to 100% because each estimate represents the percentage of respondents with no regular and vigorous activity in that demographic category (e.g., male or female).

HP2010 Objective 22-3: Increase the proportion of adults who engage in vigorous physical activity that promotes the development and maintenance of cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.

Target	30 percent
Baseline	23 % of adults aged 18 years and older engaged in vigorous physical activity 3 or more days per week for 20 or more minutes per occasion in 1997

11. Fruit and Vegetable Consumption and the 5 A Day Program

Fruits and vegetables contain essential nutrients, such as vitamins A and C, folic acid, fiber, and potassium. Making fruits and vegetables a regular part of one's diet helps to lower the risk of certain cancers and chronic diseases and it is an integral part of maintaining weight and cardiovascular health. The current recommendation for fruit and vegetable consumption from the United States Department of Agriculture's *Dietary Guidelines for Americans, 2000* is to consume at least two servings of fruit (ideally, 2–4 servings) and three servings of vegetables (ideally, 3–5 servings) daily.[17]

As shown in Figure 11-1 and Table 11-1, 26.2% (23.9–28.4) of New Hampshire residents achieved the five servings a day recommendation, while 73.8% (71.6–76.1) did not. The median of the percentage of people not consuming at least five servings of fruits and vegetables daily among all states' estimates was 76.9% in 2000.

Figure 11-1. Daily Fruit and Vegetable Consumption, 2000 NH BRFSS

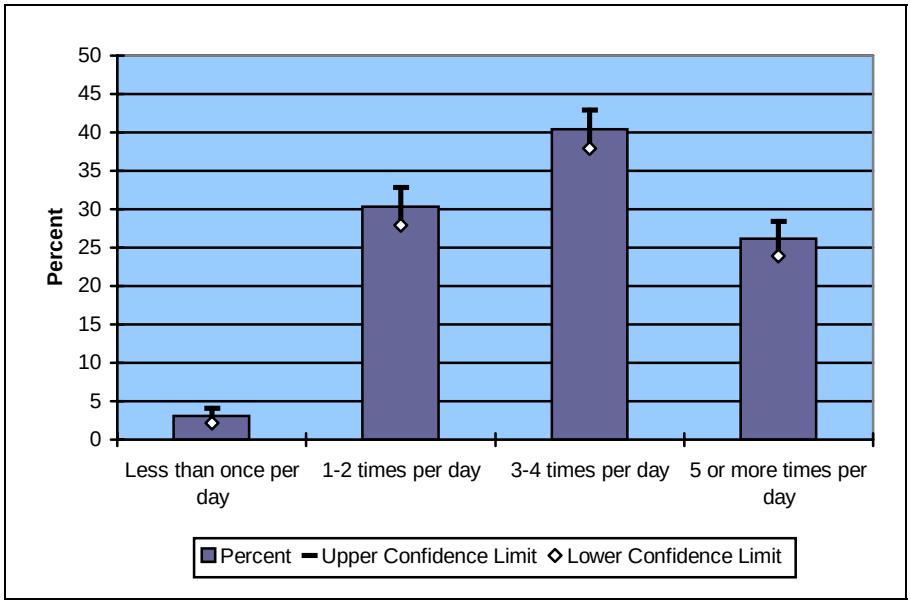


Table 11-1. Daily Fruit and Vegetable Consumption, 2000 NH BRFSS

Servings per day	% (95% CI)	Sample Size (N)
Less than 1	3.1 (2.2-4.1)	59
1-2	30.3 (27.9-32.8)	561
3-4	40.4 (37.9-42.9)	813
5 or more	26.2 (23.9-28.4)	525

Differences in the percentages of people who consume five or more servings of fruits and vegetables by sex, age, and education level, are shown in Table 11-2.

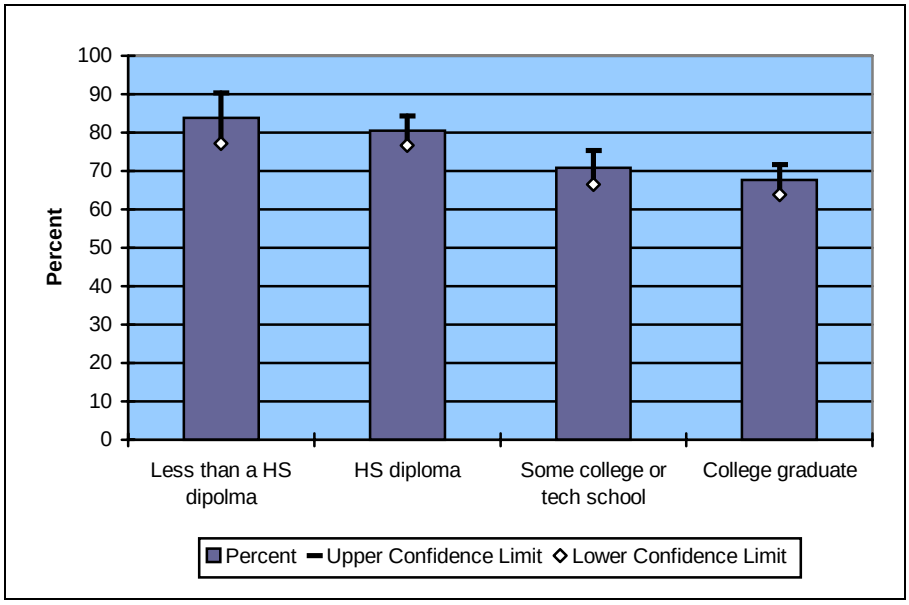
- **Sex Differences**: More women (31.1%; 28.1-34.1) than men (20.9%; 17.5-24.2) followed the five servings a day recommendation; this difference is statistically significant.
- **Age Differences**: Almost 80% (79.2%; 75.5–82.9) of people aged 35-44 did not consume at least five servings of fruits and vegetables daily. This age group was significantly higher than both the 55-64 and 65 and older groups in the percentage of people who did not consume five servings of fruits or vegetables.
- **Education Differences**: More people in the less than a high school diploma (83.8%; 77.1–90.4) and high school diploma (80.5%; 76.6–84.4) education groups failed to meet the fruit and vegetable consumption guidelines than those people with some college education (70.9%; 66.5–75.3) or with a college degree (67.7%; 63.8–71.6).

Table 11-2. Do Not Eat at Least 5 Servings of Fruits and Vegetables a Day, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	73.8 (71.6-76.1)	1433
Sex		
Male	79.1 (75.8-82.5)	629
Female	68.9 (65.9-71.9)	804
Age		
18-24	72.2 (62.6-81.8)	75
25-34	75.0 (70.0-80.1)	247
35-44	79.2 (75.5-82.9)	415
45-54	76.6 (72.2-81.0)	310
55-64	66.5 (60.1-72.8)	167
65 and older	68.6 (63.2-74.0)	219
Income		
Less than $20,000	63.9 (55.1-72.7)	131
$20,000-$34,999	74.1 (69.1-79.1)	310
$35,000-$49,999	77.6 (72.4-82.7)	244
$50,000 and higher	75.3 (71.7-78.8)	537
Education		
Less than high school graduate	83.8 (77.1-90.4)	124
High school diploma or GED	80.5 (76.6-84.4)	433
Some college or technical school	70.9 (66.5-75.3)	423
College graduate	67.7 (63.8-71.6)	450

* Percentages will not add up to 100% because each estimate represents the percentage of respondents that do not consume at least 5 servings of fruits and vegetables in that demographic category (e.g., male or female).

Figure 11-2. Do Not Eat at Least 5 Servings of Fruits and Vegetables a Day, by Education, 2000 NH BRFSS



The "5 A Day for Better Health" Program

The National Cancer Institute and Produce for Better Health Foundation (a not-for-profit consumer education organization founded by the produce industry) jointly sponsor the "5 A Day for Better Health Program" based on the above-mentioned fruit and vegetable consumption recommendation. This is an educational campaign to encourage fruit and vegetable consumption. Since its inception in late 1991, the 5 A Day for Better Health Program has proven to be one of the nation's most widely recognized health promotion programs.

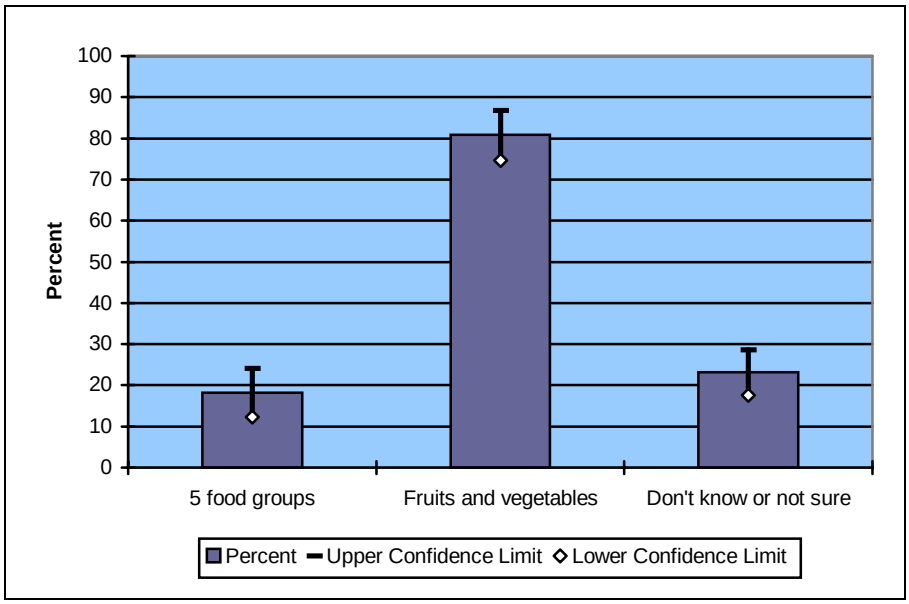
The percentage of individuals in New Hampshire who have heard of the 5 A Day program was 14.6% (12.8–16.4). Of these individuals, 62.2% (55.8–68.5) correctly identified the focus of the 5 A Day program as "fruits and vegetables." However, 23.1% (17.5–28.6) of people who had heard of the program did not know its focus (Table 11-3 and Figure 11-3).

Table 11-3. 5 A Day Program Awareness*, 2000 NH BRFSS**

What is focus of 5 A Day Program …	% (95% CI)	Sample Size (N)
5 food groups	14.0 (9.3-18.7)	35
Fruits and vegetables	62.2 (55.8-68.5)	184
Don't know or not sure	23.1 (17.5-28.6)	59

* Weight control was also an answer category, but is excluded here because too few people were in that category to create a statistically reliable estimate.
** Among people who had heard of the 5 A Day program.

Figure 11-3. Knowledge of Focus of 5 A Day Program, 2000 NH BRFSS



HNH2010 Objective: Increase the percentage of persons who consume 5 or more servings of fruits and vegetables daily.

Target	50 percent
Baseline	28% for adults in 1998
2000 NH BRFSS Measurement	26.2% (95% CI: 23.9-28.4)

For more information about the New Hampshire 5 A Day for Better Health Program:
Call 603-271-4830 (or in NH only, 1-800-852-3345, Ext.4830) or visit http://www.dhhs.state.nh.us/5aday.htm. For national 5 A Day information, visit http://www.5aday.gov/

12. Vitamin and Folic Acid Use

Questions on the NH BRFSS addressed individuals' use of supplemental vitamins. While the use of vitamins can help to describe the level of health consciousness in New Hampshire and provide information about the nutritional intake of vitamins and minerals, the goal of the questions was to determine folic acid use, particularly among women of child-bearing age. Folic acid intake is an important issue for women who might become pregnant, because folic acid reduces the risk of neural tube defect development in the fetus when taken at least one month before contraception and throughout the first trimester of pregnancy. These defects affect the brain and spinal cord and include anencephaly (no brain formation) and spina bifida, a condition that can involve paralysis. Because folic acid consumption is extremely important during the beginning of pregnancy, when many women do not realize that they are pregnant, recommendations for use include all women of childbearing age.

The current recommendation from the US Public Health Service:

All women of childbearing age should receive 400 micrograms folic acid daily before pregnancy.

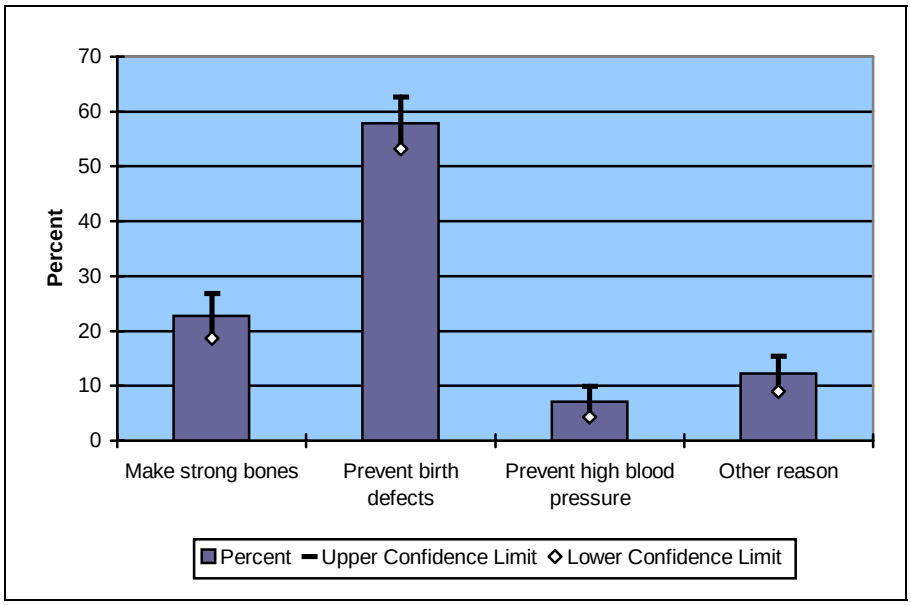
Overall, 59.6% (57.0–62.3) of people in New Hampshire take vitamins or supplements. Of these people, 83.2% (80.8–85.6) used multivitamins (which typically contain folic acid). For those people who took a vitamin that was not a multivitamin, 25.5% (18.9–32.0) took a supplement that contained folic acid. Overall most (89.5%, 87.4–91.6) vitamin consumers took a multivitamin or a vitamin containing folic acid at least once daily. More specifically, 94.4% (91.4–97.3) of women aged 18–44 who took a vitamin took either a multivitamin, vitamin, or supplement known to contain folic acid.

Respondents 45 and younger were also asked about their knowledge of why folic acid is recommended. As shown in Table 12-1 and Figure 12-1, 57.9% (53.2–62.6) of people correctly answered that folic acid is recommended to prevent birth defects. Significantly more women (68.4%; 63.3–73.6) than men (45.0%; 37.4–52.7) knew the reason for folic acid use.

Table 12-1. Knowledge of Reason for Folic Acid, 2000 NH BRFSS

Knowledge of Reason	% (95% CI)	Sample Size (N)
Make strong bones	22.7 (18.7-26.8)	134
Prevent birth defects	57.9 (53.2-62.6)	400
Prevent high blood pressure	7.1 (4.3-9.9)	36
Other reason	12.2 (9.1-15.4)	81

Figure 12-1. Knowledge of Reason for Folic Acid, 2000 NH BRFSS



For more information about folic acid use and neural tube birth defect prevention, contact:

New Hampshire Bureau of WIC Nutrition Services

Folic Acid Education Program

603-271-0571

or visit:

www.cdc.gov/ncbddd/folicacid

Chronic Conditions

13. Diabetes

Diabetes is a chronic disease that affects a person's ability to control sugar levels in the blood and convert sugar (glucose) into energy. There are two main types of diabetes, Type I and Type II. A third type of diabetes, gestational diabetes, develops only in pregnant women. Gestational diabetes can be very serious during the pregnancy, but it typically subsides when pregnancy ends. Type I diabetes, which results when the body does not produce enough insulin, typically begins during childhood and represents 5–10% of all diabetic cases. Type II diabetes results from the body being unable to use insulin that is produced, typically develops in adulthood, and accounts for 90–95% of all diabetes cases.[2] Causes for Type I diabetes are currently unknown; Type II diabetes is linked to obesity and physical inactivity.

The impact of diabetes at the national level is substantial. Rates of diabetes development in the United States increased 33% from 1990–1998.[2] Racial and ethnic disparities in the occurrence of diabetes have been reported. African-Americans are twice as likely to die from diabetes than are whites.[2] Overall, the direct and indirect costs of diabetes in the United States are estimated to be $100 billion annually.[2]

In New Hampshire, 4.4% (3.4–5.4) of adults have been diagnosed with (non-gestational) diabetes according to the 2000 NH BRFSS. The median of diabetes prevalence among all states' estimates was 6.1% according to the 2000 BRFSS. The average age at diagnosis in New Hampshire was 50.2 (47.0–53.4) years old.

Management of diabetes is a multi-faceted task, mostly because of the various diabetes-related complications that can develop, particularly if diabetes is untreated or uncontrolled; these complications are discussed in more detail below. Avoiding the majority of diabetic complications and their related morbidity starts with patient education regarding prevention and treatment of diabetes-related disease. Appropriate diet, monitoring, screening, and visits to health care professionals are all important pieces in successfully managing diabetes. Ideally, this education will stem from a comprehensive treatment plan that includes dietitians, educators, and clinicians. The majority of people with diabetes in New Hampshire, 61.1% (49.8–72.4), saw a health professional at least 4 times over the preceding 12 months; the mean number of visits was 4.4 (3.4–5.3). Additionally, 57.1% (45.9–68.2) of people with diabetes in New Hampshire had ever taken a class in managing diabetes.

The mainstay of successful diabetes management is monitoring and control of blood sugar levels. Glucose monitoring can be measured in multiple ways. Individuals can monitor their own glucose levels with at-home blood tests. People with diabetes may need to check their own glucose levels several times daily, depending on the type and severity of their diabetes. In NH, 51.1% (39.7–62.6) of people with diabetes checked their own blood sugar at least once daily; the mean number of times was 1 time (0.8–1.3 times) daily. At the professional level, health care providers use the hemoglobin A_{1c} test to measure a patient's

glucose control. In its 2001 Guidelines, the American Diabetes Association (ADA) recommends that people with diabetes with demonstrated controlled glucose levels have their hemoglobin A_{1c} checked once every three months; those individuals yet to achieve control or those trying new medications should be tested more frequently.[20] According to the NH BRFSS, 81.0% (72.5–89.3) of people with diabetes (who knew whether or not they had a hemoglobin A_{1c}) test had a hemoglobin A_{1c} test at least once in the past 12 months; 38.8% (26.7–50.8) had the test at least 4 times in the preceding 12 months. However, 14.9% (7.4–22.4) of people with diabetes did not know or were not sure if they had a hemoglobin A_{1c} test in the past 12 months (these responses were excluded from the analyses reported above).

Glucose control is vital to preventing kidney disease and can reduce the likelihood of developing other diabetic complications. Treatment to control glucose levels has been shown to reduce diabetes-related kidney failure by 50%.[2] For many individuals with Type I diabetes, injectible insulin is prescribed to assist in glucose control. Oral medications may also be prescribed for people with Type II diabetes for their glucose control. According to the NH BRFSS, 28.4% (17.9–38.8) of people with diabetes were currently taking insulin and 75.1% (65.3–84.8) were taking diabetes pills.

One of the serious complications that can result from diabetes is foot infection; serious infections can lead to the need for foot amputation. Half of all amputations could be prevented with regular exams and patient education regarding risk for foot infections and their prevention.[2] The ADA recommends an annual foot exam and suggests that some individuals with diabetes may require more frequent examinations, depending on other risk factors.[20] In New Hampshire, 72.0% (61.8–82.2) of people with diabetes checked their own feet at least once daily; the mean number of times checked was 0.9 (0.7–1.0) times daily. At the professional level, 75.2% (65.7–84.6) of people with diabetes in New Hampshire had a foot exam yearly and 28.3% (18.0–38.6) got a professional foot exam at least four times annually.

Retinopathy, a disease of the retina of the eye, is also a potential complication of diabetes and can lead to blindness. It is estimated that screening and proper care for eye disease could prevent 90% of diabetes-related blindness.[2] The ADA recommends an annual dilated eye exam for people with diabetes 10 years of age and older who have had diabetes for at least 3–5 years and for all patients diagnosed with diabetes after age 30. An ophthalmologist or optometrist specializing in diabetes should perform these exams.[20] Among people with diabetes in New Hampshire, 89.3% (82.5–96.2) had an eye exam in which their pupils were dilated during the previous year. Also, 15.6% (7.6–23.7) of people with diabetes in New Hampshire have been told that diabetes has affected their eyesight or that they have retinopathy.

An annual influenza vaccination is recommended for all people with diabetes 6 months of age and older. People with diabetes are almost 3 times more likely to die of flu and pneumonia complications than the general public.[20] For people with diabetes in New Hampshire, 63.5% (52.5–74.6) received their flu shot over the past 12 months.

Table 13-1. Achievement of Treatment Guidelines by People with Diabetes, 2000 NH BRFSS

Measure	Goal or guideline	Measure of achievement	2000 NH BRFSS estimate (95% CI)
Self blood sugar test	Variable, up to several times daily	Regular glucose checks	51.1% (39.7-62.6) checked glucose at least once daily
Hemoglobin A_{1c}	Quarterly	Percentage getting test at least 4 times yearly	38.8% (26.7-50.8)
Self foot exam	Variable	Regular feet self-exams	72.0% (61.8-82.2) examined feet at least once daily
Professional foot exam	Annually	Percentage who report getting regular foot exams	75.2% (65.7-84.6) reported annual professional foot exam; 28.3% (18.0-38.6) reported a professional foot exam at least 4 times yearly
Dilated eye exam	Annually	Percentage who report exam in past 12 months	89.3% (82.5-96.2)
Influenza vaccination	Annually	Percentage who report vaccine in past 12 months	63.5% (52.5-74.6)

HNH2010 Objectives:

Increase the percentage of adults with diabetes who report having had a glycosolated hemoglobin measurement in the last 12 months.*

Target	50%
Baseline	19%, 1996-1998
2000 NH BRFSS Measurement	81.0% (95% CI: 72.5-89.3)

HNH2010 Objective: Increase the percentage of adults with diabetes who report having had a dilated eye exam in the last 12 months.

Target	80%
Baseline	71%
2000 NH BRFSS Measurement	89.3% (95% CI: 82.5-96.2)

* Note: Due to a change in question design, the data used to develop the baseline and targets for the HNH2010 and HP2010 and the data from the 2000 NH BRFSS are not comparable.

HP2010 Objective 5-1: Increase the proportion of persons with diabetes who receive formal diabetes education.

Target	60%
Baseline	45% of persons with diabetes received formal diabetes education in 1998.

HP2010 Objective 5-12: Increase the proportion of adults with diabetes who have a glycosylated hemoglobin measurement at least once a year.*

Target	50%
Baseline	24% of adults aged 18 years and older with diabetes had a glycosylated hemoglobin measurement at least once a year (mean of data from 39 states in 1998).

HP2010 Objective 5-13: Increase the proportion of adults with diabetes who have an annual dilated eye examination.

Target	75%
Baseline	47% of adults aged 18 years and older with diabetes had an annual dilated eye examination in 1998

HP2010 Objective 5-14: Increase the proportion of adults with diabetes who have at least an annual foot examination.

Target	75%
Baseline	55% of adults aged 18 years and older with diabetes had at least an annual foot examination (mean value of data from 39 States in 1998).

HP2010 Objective 5-17: Increase the proportion of adults with diabetes who perform self-blood-glucose-monitoring at least once daily.

Target	60%
Baseline	42% of adults aged 18 years and older with diabetes performed self-blood-glucose-monitoring at least once daily (mean of data from 39 States in 1998).

* Note: Due to a change in question design, the data used to develop the baseline and targets for the HNH2010 and HP2010 and the data from the 2000 NH BRFSS are not comparable.

New Hampshire Diabetes Education Program

For more information about diabetes in New Hampshire, contact:

NH Department of Health and Human Services
Office of Community and Public Health
Diabetes Education Program
6 Hazen Drive
Concord, NH 03301
603-271-5173 or 1-800-852-3345, ext. 5173

14. Asthma

As defined by the National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health (NIH), "Asthma is a chronic inflammatory disorder of the airways in which many cells or cellular elements play a role…In susceptible individuals, this inflammation causes recurrent episodes of wheezing, breathlessness, chest tightness, and coughing…"[18] Asthma is the most common chronic condition of childhood; an estimated three-quarters of children with asthma will experience at least episodic asthma as adults.[19] In 1998, the estimated national direct and indirect costs related to asthma were $11.3 billion.[1] Asthma is one disease for which racial disparities regarding its prevalence have been noted; African-Americans have disproportionately high asthma rates.[1]

Overall, 12.0% (10.2–13.7) of New Hampshire adults had been told that they had asthma in their lifetime. The median of asthma prevalence estimates for all states in 2000 was 10.5% according to the BRFSS. There were no differences in the percentage of people in New Hampshire who were told that they had asthma according to sex, age, income, or education (Table 14-1). Among people ever told that they had asthma in New Hampshire, 69.9% (62.8–76.9) still had asthma.

Table 14-1. Ever Told Have Asthma, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	12.0 (10.2-13.7)	239
Sex		
Male	10.7 (8.2-13.2)	82
Female	13.2 (11.0-15.4)	157
Age		
18-24	12.5 (6.2-18.7)	16
25-34	14.5 (9.9-19.0)	49
35-44	10.2 (7.3-13.1)	53
45-54	15.7 (11.5-19.9)	63
55-64	9.7 (5.9-13.6)	26
65 and older	9.0 (5.7-12.3)	31
Income		
Less than $20,000	13.0 (8.0-17.9)	31
$20,000-$34,999	13.8 (9.8-17.8)	54
$35,000-$49,999	11.1 (7.4-14.8)	42
$50,000 and higher	10.7 (8.2-13.3)	77
Education		
Less than high school graduate	12.8 (6.6-19.1)	21
High school diploma or GED	9.9 (7.0-12.8)	58
Some college or technical school	14.1 (10.7-17.5)	77
College graduate	11.8 (9.0-14.6)	83

* Percentages will not add up to 100% because each estimate represents the percentage of respondents with asthma in that demographic category (e.g., male or female).

Similarly, 12.6% (11.1–14.3) of people had a child who had been diagnosed with asthma. There were no differences in the percentages of people who had a child diagnosed with asthma among income or education groups. Within age groups, 20.0% (15.3–24.6) of people aged 45–54 had children diagnosed with asthma; this was significantly different than the 25–34 (whose children may not yet be old enough for an asthma diagnosis) and the 65 and older group (who may not recall their child's asthma status). Of those people who reported that their children had been diagnosed with asthma, 21.8% (15.9–27.6) reported that their children were taking medicine for their asthma.

Table 14-2. Ever Told Child Had Asthma, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	12.6 (11.1-14.3)	250
Age		
18-24	0	N/A
25-34	9.5 (5.8-13.2)	28
35-44	16.2 (12.7-19.7)	81
45-54	20.0 (15.3-24.6)	74
55-64	17.5 (12.3-22.7)	40
65 and older	9.2 (5.6-12.8)	26
Income		
Less than $20,000	16.5 (10.4-22.6)	31
$20,000-$34,999	13.6 (10.0-17.1)	61
$35,000-$49,999	10.0 (6.5-13.6)	33
$50,000 and higher	15.1 (12.1-18.0)	109
Education		
Less than high school graduate	18.2 (11.1-25.3)	26
High school diploma or GED	12.4 (9.3-15.5)	69
Some college or technical school	13.7 (10.6-16.8)	81
College graduate	10.6 (8.1-13.2)	74

* Percentages will not add up to 100% because each estimate represents the percentage of respondents with children with asthma in that demographic category (e.g., 18–24 or 25–34).

For more information about asthma, call the National Heart, Blood, and Lung Institute Information Center at 301-251-1222 or visit www.nhlbi.nih.gov

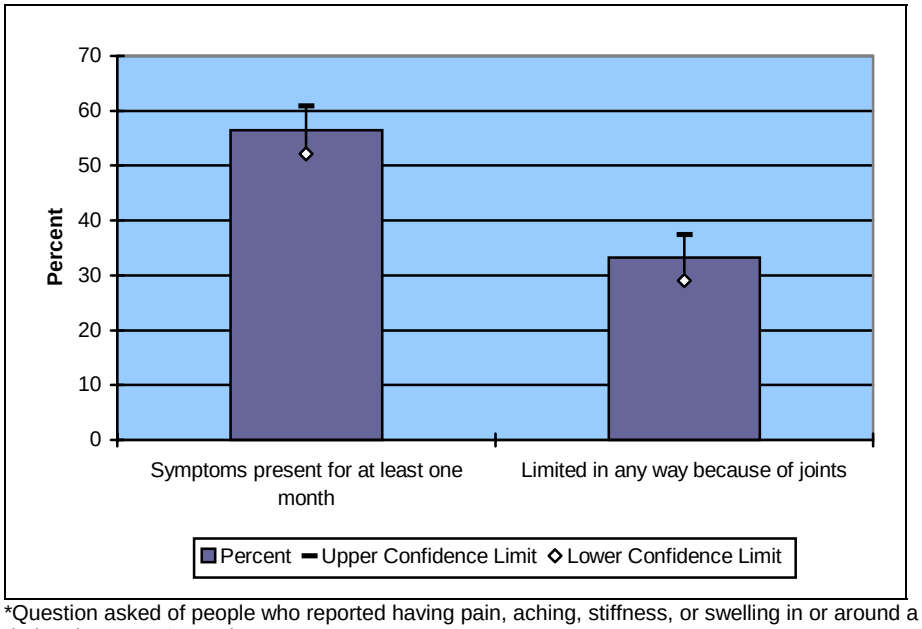
15. Arthritis

Arthritis refers to more than 100 different conditions that affect bones and joints and is a major cause of disability in the United States. The most common form of arthritis is osteoarthritis, a condition in which cartilage wears away, resulting in significant pain and swelling. Other types of arthritis may cause pain and restrict mobility. A wide variety of symptoms and levels of severity are possible.

Early detection and treatment can increase the likelihood of overall successful management of arthritis and prevent it from severely limiting the normal activities of arthritis sufferers. Arthritis management can include both medical treatments and prevention efforts. The overall treatment goals are pain relief, strength training, and motion increase, which can require physical therapy, use of walking aids, surgery, and medication. Recommended methods for preventing severe problems with arthritis include weight control and limiting activities that risk serious damage to bones and joints. Arthritis costs $15 billion in direct and indirect medical expenses in the United States each year.[21]

Overall in New Hampshire, 33.8% (31.4–36.3) of people reported having pain, aching, stiffness, or swelling in or around a joint during the past 12 months. Of these individuals, 56.6% (52.2–60.9) had symptoms for at least one month and 33.2% (29.0–37.4) reported being limited in some way because of their joints, as shown in Figure 15-1 and Table 15-1.

Figure 15-1. Joint Symptom Duration and Limitations,* 2000 NH BRFSS



*Question asked of people who reported having pain, aching, stiffness, or swelling in or around a joint during the past 12 months.

Table 15-1. Joint Symptom Duration and Limitations*, 2000 NH BRFSS

Symptom Duration	% (95% CI)	N
Symptoms present for at least one month	56.6 (52.2-60.9)	373
Limited in any way because of joints	33.2 (29.0-37.4)	79

* Question asked of people who reported having pain, aching, stiffness, or swelling in or around a joint during the past 12 months.

The prevalence of arthritis diagnosed by a doctor in 2000 was 20.9% (19.0–22.9). Accounting for 62.9% (56.3–69.4) of the cases, the most common type of arthritis diagnosed was osteoarthritis or degenerative arthritis (Table 15-2). Among those people diagnosed with arthritis, 32.2% (27.4–37.0) were currently being treated for arthritis by a doctor. The NH BRFSS found differences in doctor-diagnosed arthritis prevalence within sex, age, education, and income levels (Table 15-3).

- **Sex Differences**: Significantly more women (24.8%; 22.0–27.5) were diagnosed by a doctor with arthritis than men (16.8%; 14.1–19.6).
- **Age Differences**: Doctor-diagnosed arthritis was significantly more prevalent among the older age groups (55–64 and 65 and older) than all the younger groups.
- **Income Differences**: Doctor-diagnosed arthritis was less prevalent (17.1%; 14.1–20.1) among the highest income group (greater than $50,000) than the lowest income group (less than $20,000).
- **Education Differences**: When comparing education levels, doctor-diagnosed arthritis prevalence was significantly lower among the college graduates (16.4%; 13.4–19.4) than people who were not high school graduates (30.6%; 21.8–39.4).

Table 15-2. Type of Arthritis Diagnosed by a Doctor, 2000 NH BRFSS

Arthritis Type	% (95% CI)	Sample Size (N)
Osteoarthritis/degenerative arthritis	62.9 (56.3-69.4)	163
Rheumatoid arthritis	15.5 (10.6-20.3)	41
Rheumatism	6.1 (3.2-9.0)	19
Other	14.0 (9.1-18.7)	33

Table 15-3. Have Been Told Have Arthritis, by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	20.9 (19.0-22.9)	441
Sex		
Male	16.8 (14.1-19.6)	150
Female	24.8 (22.0-27.5)	291
Age		
18-24	4.9 (0.3-9.5)	5
25-34	7.6 (4.4-10.9)	26
35-44	11.9 (8.9-14.8)	64
45-54	23.0 (18.5-27.5)	100
55-64	40.0 (33.4-46.6)	102
65 and older	45.8 (39.8-51.9)	140
Income		
Less than $20,000	31.5 (23.8-39.3)	70
$20,000-$34,999	23.4 (19.0-27.8)	111
$35,000-$49,999	19.3 (14.7-24.0)	66
$50,000 and higher	17.1 (14.1-20.1)	127
Education		
Less than high school graduate	30.6 (21.8-39.4)	49
High school diploma or GED	20.1 (16.5-23.7)	130
Some college or technical school	24.1 (20.3-28.0)	143
College graduate	16.4 (13.4-19.4)	119

* Percentages will not add up to 100% because each estimate represents the percentage of respondents with arthritis in that demographic category (e.g., male or female).

HNH2010 Objective: Increase the percentage of adults with arthritis who are receiving treatment.

Target	Developmental
Baseline	Developmental
2000 NH BRFSS Measurement	32.2% (95% CI: 27.4-37.0)

Cancer Screening

16. Breast Cancer Screening

Breast cancer was the most common type of newly diagnosed cancer in New Hampshire women, and was the second leading cause of cancer death (behind lung cancer) in women in 1998 (most recent available data).[22] Detecting breast cancer early is key to surviving the disease and regular screening is key to detecting the disease early. The 5-year survival rate for localized breast cancer—before it spreads to any lymph nodes—is 97%. Once disease has spread to include underarm lymph nodes, 5-year survival decreases to 76% and if it spreads to other organs, the survival decreases to 20%.[23]

Among the methods for early detection of breast cancer are mammography and clinical breast exam (CBE). The latter of these is a clinical examination that involves a health care provider's physical examination of breast tissue. Mammography involves an x-ray examination of the breast and can detect abnormalities in the breast before they can be felt. Because the risk of developing breast cancer increases as women get older, mammography (with its increased sensitivity) is recommended for older women, while clinical breast exams should be part of the regular health routine for all adult women.

Due to increased survival rates for breast cancer when detected early, the National Cancer Institute recommends:

- Women in their 40's and older should be screened every one to two years with mammography.
- Women at higher than average risk of breast cancer seek expert medical advice about whether they should begin screening before age 40 and the frequency of screening.
- Women should have a clinical breast exam by a health care provider as part of regular, routine care.

As shown in Table 16-1, the percentage of women who had never had a mammogram differed among age groups. While overall 40.3% (37.1–43.6) of women in New Hampshire had never had a mammogram, looking more closely at the various age groups, few women in the 40–49 (13.3%; 9.2–17.4), 50–64 (5.3%; 2.5–8.1), and 65 and older age groups (7.9%; 3.8-12.1) never had a mammogram, which corresponds to the national screening guidelines. The percentages of women who never had a mammogram were not significantly different within the various income and education categories.

Table 16-1. Never Had a Mammogram, by Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	40.3 (37.1-43.6)	409
Age		
18-29	92.9 (87.9-97.9)	141
30-39	78.1 (73.0-83.2)	195
40-49	13.3 (9.2-17.4)	40
50-64	5.3 (2.5-8.1)	16
65 and older	7.9 (3.8-12.1)	15
Income		
Less than $20,000	37.4 (28.0-46.8)	45
$20,000-$34,999	43.7 (36.4-50.9)	104
$35,000-$49,999	47.4 (39.7-55.1)	73
$50,000 and higher	35.3 (30.0-40.5)	128
Education		
Less than high school graduate	41.9 (28.9-55.0)	31
High school diploma or GED	35.9 (30.1-41.6)	109
Some college or technical school	43.8 (37.8-49.9)	136
College graduate	40.6 (35.1-46.1)	133

* Percentages will not add up to 100% because each estimate represents the percentage of respondents that never had a mammogram in that demographic category (e.g., 18-29 or 30-39).

The majority of women who reported ever having a mammogram had their last mammogram within the past year (74.1%; 70.7–77.4), as shown in Table 16-2 and Figure 16-1. Almost 90% (88.4%; 86.0–90.9) of women who had a mammogram had their last mammogram within the past 2 years. Of those women who had a mammogram, the percentage that had their last mammogram within the past two years (Table 16-3) did not significantly differ among age, income, or education groups. Overall, 90.3% (87.7–92.8) of women reported that their last mammogram was performed as part of a routine checkup.

Table 16-2. Time Since Last Mammogram, 2000 NH BRFSS

Length of Time	% (95% CI)	Sample Size (N)
Within past year	74.1 (70.7-77.4)	519
1- 2 years ago	14.3 (11.5-17.0)	111
2-3 years ago	3.8 (2.4-5.1)	29
3-5 years ago	3.9 (2.5-5.2)	30
More than 5 years ago	3.8 (2.4-5.1)	30

Figure 16-1. Time Since Last Mammogram, 2000 NH BRFSS

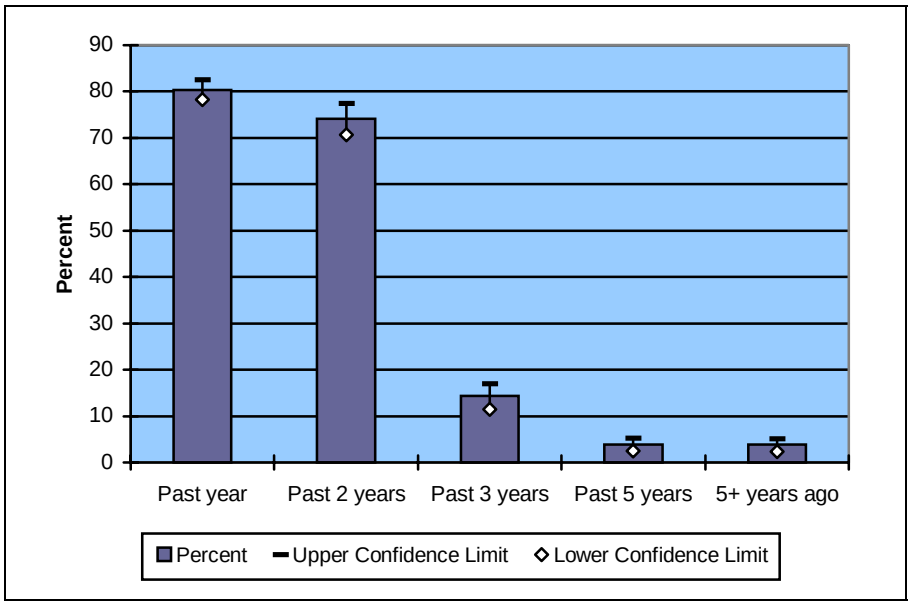


Table 16-3. Last Mammogram within Past 2 Years (Among Women with Previous Mammogram), by Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	88.4 (86.0-90.9)	630
Age		
18-29	N/A**	9
30-39	76.5 (64.8-88.3)	49
40-49	88.5 (84.2-92.8)	212
50-64	91.3 (87.5-95.0)	199
65 and older	88.8 (84.0-93.5)	154
Income		
Less than $20,000	83.8 (76.4-91.2)	80
$20,000-$34,999	84.7 (78.4-91.2)	124
$35,000-$49,999	84.3 (76.6-92.0)	92
$50,000 and higher	93.6 (90.5-96.8)	233
Education		
Less than high school graduate	85.1 (74.2-96.0)	43
High school diploma or GED	86.7 (82.1-91.4)	186
Some college or technical school	88.6 (84.3-92.9)	193
College graduate	91.0 (87.0-94.9)	207

*Percentages will not add up to 100% because each estimate represents the percentage of respondents with a mammogram in the past 2 years in that demographic category (e.g., 30–39 or 40–49).
**Too few respondents to allow for calculation of reliable estimate.

Almost all New Hampshire women—94.4% (92.5–95.9)—had ever had a CBE. The majority (79.6%; 76.9–82.3) had their last CBE within the past year (Figure 16-2 and Table 16-4). As shown in Table 16-5, more women aged 18–29 reported having a CBE within the past year (88.9%; 83.5–94.3) than other age groups; this was significantly higher than both the 30–39 and 40–49 age groups. No significant differences were reported between income or education groups. Overall, 95.9% (94.5–97.2) of women who reported having a CBE in their lifetime had their last exam as part of a routine checkup.

Figure 16-2. Time Since Last Clinical Breast Exam, 2000 NH BRFSS

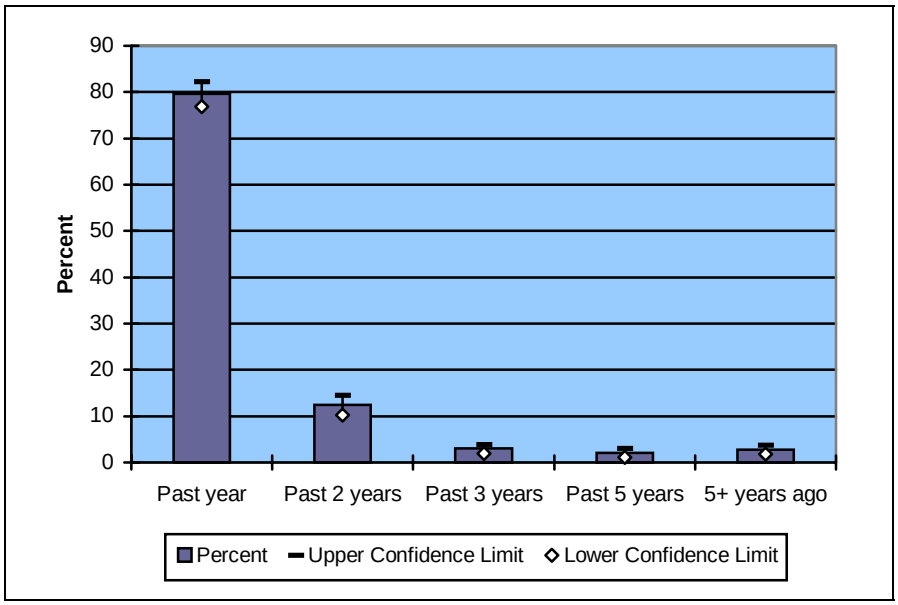


Table 16-4. Time Since Last Clinical Breast Exam, 2000 NH BRFSS

Length of Time	% (95% CI)	Sample Size (N)
Within past year	79.6 (76.8-82.3)	833
1- 2 years ago	12.4 (10.2-14.5)	133
2-3 years ago	3.0 (2.0-3.9)	35
3-5 years ago	2.1 (1.1-3.0)	26
More than 5 years ago	2.8 (1.8-3.7)	34

Table 16-5. CBE Within Past Year, by Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	79.6 (76.9-82.3)	833
Age		
18-29	88.9 (83.5-94.3)	120
30-39	72.2 (66.5-77.9)	181
40-49	75.0 (69.6-80.4)	202
50-64	79.5 (73.9-85.2)	178
65 and older	82.9 (76.9-89.0)	144
Income		
Less than $20,000	76.8 (69.6-84.1)	91
$20,000-$34,999	76.2 (69.7-82.7)	174
$35,000-$49,999	79.1 (71.2-87.1)	142
$50,000 and higher	82.1 (77.7-86.5)	299
Education		
Less than high school graduate	75.1 (64.3-85.8)	50
High school diploma or GED	75.3 (70.3-80.4)	225
Some college or technical school	83.6 (79.2-87.9)	275
College graduate	80.5 (76.0-85.1)	282

*Percentages will not add up to 100% because each estimate represents the percentage of respondents with CBE within the past year in that demographic category (e.g., 18-29, 30-39).

HP2010 Objective 3-13: Increase the proportion of women aged 40 years and older who have received a mammogram within the preceding 2 years.

Target	70 percent
Baseline	67 percent of women aged 40 years and older received a mammogram within the preceding 2 years in 1998

Let No Woman Be Overlooked
Breast and Cervical Cancer Screening

For more information about how to access breast and cervical cancer screening services in New Hampshire, contact:

The NH DHHS's "Let No Woman Be Overlooked" program at 1-800-852-3345 ext. 4931 (in NH) or 1-603-271-4931.

17. Cervical Cancer Screening

Cervical cancer accounted for about 2% of newly diagnosed cancer cases and 2% of cancer deaths among women in New Hampshire in 1998.[22] Although it is not a common cancer, cervical cancer is a highly treatable cancer. Detected early, in its non-invasive stage, cervical cancer survival is near 100%. However, the American Cancer Society estimates that 60–80% of all women diagnosed with invasive cervical cancer have not been screened with a Papanicolaou smear (Pap smear) in the past 5 years.[23] The Pap smear is a diagnostic test that inspects the cells lining the cervix in an effort to detect cancerous or pre-cancerous cells. The test is performed in a health care setting and should be part of the regular health care for women 18 years and older.

The ACS recommends:
All women 18 years or older, or younger women who are sexually active, should receive an annual Pap test. After three or more consecutive annual exams with normal findings, the Pap test may be performed less frequently at the discretion of the physician.

Overall in New Hampshire, 96.8% (95.4–98.1) of women have had a Pap smear in their lifetimes. The national median of all states' estimates for never having a Pap smear was 5.1%. As indicated in Figure 17-1 and Table 17-1, 74.3% (71.5–77.0) of women who had ever had a Pap smear had their last test within the past year.

Figure 17-1. Time Since Last Pap Smear, 2000 NH BRFSS

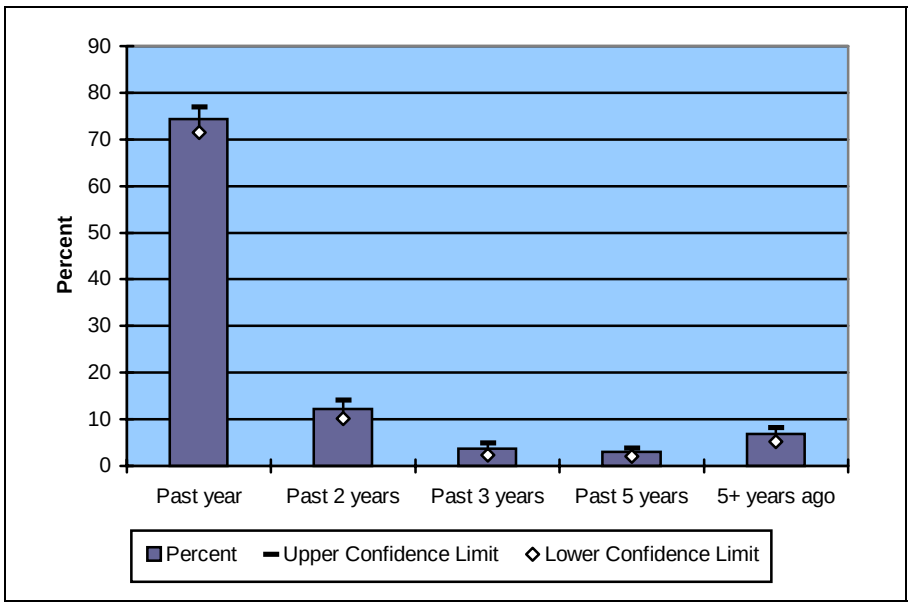


Table 17-1. Time Since Last Pap Smear, 2000 NH BRFSS

Length of Time	% (95% CI)	Sample Size (N)
Within past year	74.3 (71.5-77.0)	792
1- 2 years ago	12.2 (10.2-14.1)	138
2-3 years ago	3.7 (2.3-5.0)	44
3-5 years ago	3.0 (2.0-3.9)	36
More than 5 years ago	6.8 (5.2-8.3)	77

There were differences among women who had their last Pap smear within the past year within the age and income groups (Table 17-2).

- **Age Differences**: A significantly higher percentage of women 18–29 years old (92.4%; 88.3–96.5) had a Pap smear within the past year than all other age groups. Significantly fewer women aged 65 and older (54.8%; 46.9–62.7) had a Pap smear within the past year compared to all other age groups except the 40–49 age group.
- **Income Differences**: Comparing the highest and lowest income groups, significantly fewer women in the less than $20,000 annual income group (66.2%; 57.5–74.8) reported a Pap smear within the past year than did those in the $50,000 and higher income group (79.7%; 75.4–84.0).

Figure 17-2. Pap Smear Within Past Year, by Age, 2000 NH BRFSS

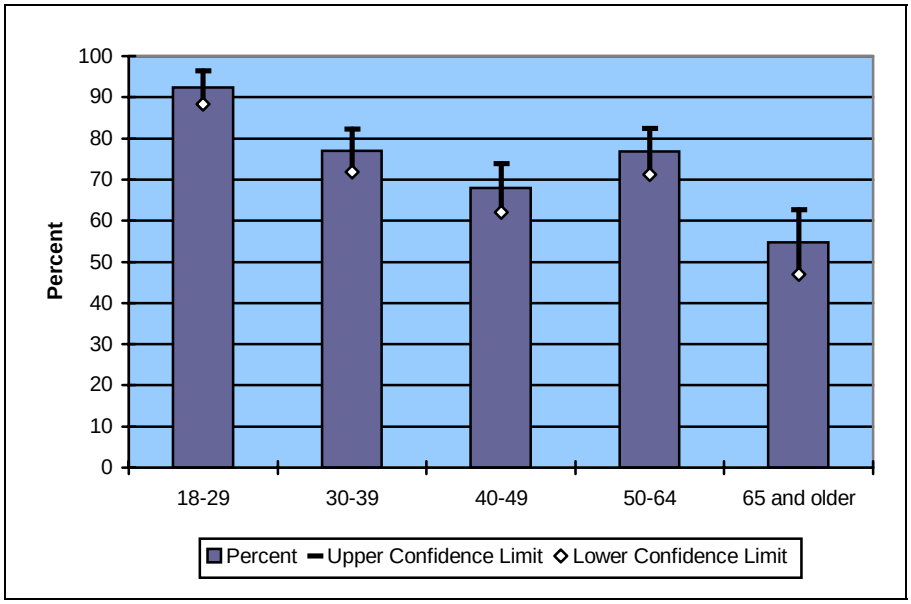


Table 17-2. Pap Smear Within Past Year, by Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	74.3 (71.5-77.1)	792
Age		
18-29	92.4 (88.3-96.5)	128
30-39	77.0 (71.8-82.3)	198
40-49	67.9 (62.0-73.8)	189
50-64	76.8 (71.2-82.5)	172
65 and older	54.8 (46.9-62.7)	97
Income		
Less than $20,000	66.2 (57.5-74.8)	80
$20,000-$34,999	70.2 (64.2-76.1)	161
$35,000-$49,999	79.2 (71.4-87.1)	143
$50,000 and higher	79.7 (75.4-84.0)	296
Education		
Less than high school graduate	67.6 (55.7-79.5)	48
High school diploma or GED	68.9 (63.6-74.3)	215
Some college or technical school	77.4 (72.9-81.9)	257
College graduate	77.9 (73.4-82.5)	271

*Percentages will not add up to 100% because each estimate represents the percentage of respondents with a Pap smear in the past year in that demographic category (e.g., 18-29 or 30-39).

HP 2010 Objective 3-11: Increase the proportion of women who receive a Pap test.

Target	97% of women aged 18 and older ever received a Pap test in 1998. 90% of women aged 18 years and older received a Pap test within the preceding 3 years.
Baseline	92% of women aged 18 and older ever received a Pap test in 1998. 79% of women aged 18 years and older received a Pap test within the preceding 3 years.

For more information about how to access breast and cervical cancer screening services in New Hampshire, contact:

The NH DHHS's "Let No Woman Be Overlooked" program at 1-800-852-3345 ext. 4931 (in NH) or 1-603-271-4931.

18. Prostate Cancer Screening

Prostate cancer was the most common type of newly diagnosed cancer and the third leading cause of cancer death (behind lung and colorectal cancers) among men in 1998 (most recent available data).[22] Detection of prostate specific antigen (PSA), a tumor marker that can be detected through blood, can be used to screen for prostate cancer.

The American Cancer Society recommends:
All men aged 50–70 years should discuss PSA with their health care providers to determine their need for PSA.

Overall, 61.2% (57.0–65.5) of men in New Hampshire had heard of PSA (Table 18-1). No significant differences were seen by income, but age and education groups were different.

- **Age Differences**: Older people in New Hampshire were more familiar with PSA than younger individuals. Every level of age group was significantly different than the next level.
- **Education Differences**: The NH BRFSS showed a trend of better awareness of PSA with increasing education. The percentage of college graduates having heard of PSA was greater (71.2%; 65.1–77.2) than any other age group, but this difference was significantly greater only when compared to people with a high school degree or GED.

Overall, 45.1% (40.0–50.1) of New Hampshire men who had heard of PSA reported that they had a PSA (Table 18-2). While no differences between income or education groups were observed, differences by age groups were detected. Specifically, 76.6% (70.8–82.4) of men 50 and older reported that they had ever had a PSA; this was significantly higher than the other age groups. Of all men who reported ever having a PSA, the majority (75.0%; 68.7–81.3) had the test within the past year.

Table 18-1. Heard of PSA, by Age, Education, and Income Levels, 2000 NH BRFSS*

Demographic	% (95% CI)**	Sample Size (N)
Overall	61.2 (57.0-65.5)	475
Age		
18-29	34.7 (23.0-46.5)	32
30-49	54.7 (49.2-60.2)	204
50 and older	86.6 (82.5-90.6)	238
Income		
Less than $20,000	57.5 (36.7-78.4)	30
$20,000-$34,999	57.1 (47.6-66.6)	90
$35,000-$49,999	53.8 (43.8-63.8)	72
$50,000 and higher	64.2 (57.9-70.5)	212
Education		
Less than high school graduate	55.6 (39.1-72.2)	34
High school diploma or GED	51.1 (42.5-59.8)	112
Some college or technical school	60.9 (53.0-68.8)	123
College graduate	71.2 (65.1-77.2)	206

*Among men only

**Percentages will not add up to 100% because each estimate represents the percentage of respondents who have heard of PSA in that demographic category (e.g., 18-29 or 30-49).

Table 18-2. Had PSA, by Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	45.1 (40.0-50.1)	221
Age		
18-29	N/A**	3
30-49	18.4 (12.9-24.0)	41
50 and older	76.6 (70.8-82.4)	177
Income		
Less than $20,000	45.8 (23.4-68.1)	16
$20,000-$34,999	49.9 (37.7-62.1)	46
$35,000-$49,999	40.5 (28.2-52.9)	30
$50,000 and higher	44.6 (37.2-51.9)	94
Education		
Less than high school graduate	41.5 (21.3-61.7)	16
High school diploma or GED	41.6 (31.5-51.7)	53
Some college or technical school	44.2 (34.0-54.3)	57
College graduate	48.3 (40.7-55.9)	95

*Percentages will not add up to 100% because each estimate represents the percentage of respondents that have had PSA in that demographic category (e.g., 18-29 or 30-39).

**Too few respondents to allow for calculation of reliable estimate.

Infectious Disease Risk and Awareness

19. HIV/AIDS

As the epidemic enters its third decade, HIV/AIDS continues to be one of the most dominant health issues in the world. Despite long-standing recognition of the risk factors and transmission routes for HIV, the number of individuals newly infected with HIV in the United States remains high. The CDC estimates that 40,000 people per year become infected with HIV in the United States.[3] The most commonly affected population infected with HIV continues to be gay men, but other populations are quickly becoming foci of concern among the health community. Women accounted for 30% of new HIV cases in 1999, according to the CDC.[3] Young people and racial/ethnic minorities, particularly African-Americans and Hispanics, are also groups among whom infection rates are of particular concern.

HIV's main transmission vehicles are blood and genital secretions. Before the disease was discovered in the 1980's, blood transfusions were an important potential source of contracting HIV in the United States. Since 1985, blood has been tested and treated for the presence of HIV; only individuals who received blood before 1985 are considered at risk from contracting HIV from the blood supply. Unprotected heterosexual or homosexual relations with a person who has HIV and sharing needles with HIV-infected people are the most common means of HIV transmission. HIV-infected pregnant women can also transmit the virus to the fetus during birth or when breastfeeding.

Testing for the presence of HIV involves detecting the body's immune response to the virus. This immune response can develop 6–12 weeks after exposure to the virus and is often present despite the individual having no symptoms of disease. This asymptomatic time period, when a person feels fine but can transmit HIV, is a particularly dangerous time for spreading the virus. Therefore, it is vital that anyone who is at risk for developing HIV be tested, regardless of his or her current health status. Once tested, individuals should receive counseling, which has multiple goals: to educate uninfected people about how to avoid getting the disease, to help infected people cope with their diagnosis, and to educate infected people about preventing the spread of HIV.

Among people 18–64 years old (people 65 and older were not asked any of the HIV/AIDS questions on the 2000 NH BRFSS), the majority of individuals (64.4%; 61.4–67.3) believed they had no risk of contracting HIV, as displayed in Figure 19-1 and Table 19-1. Only 1.3% (0.5–2.0) considered themselves at high risk for contracting HIV.

Figure 19-1. Self-Reported Likelihood of Contracting HIV, 2000 NH BRFSS

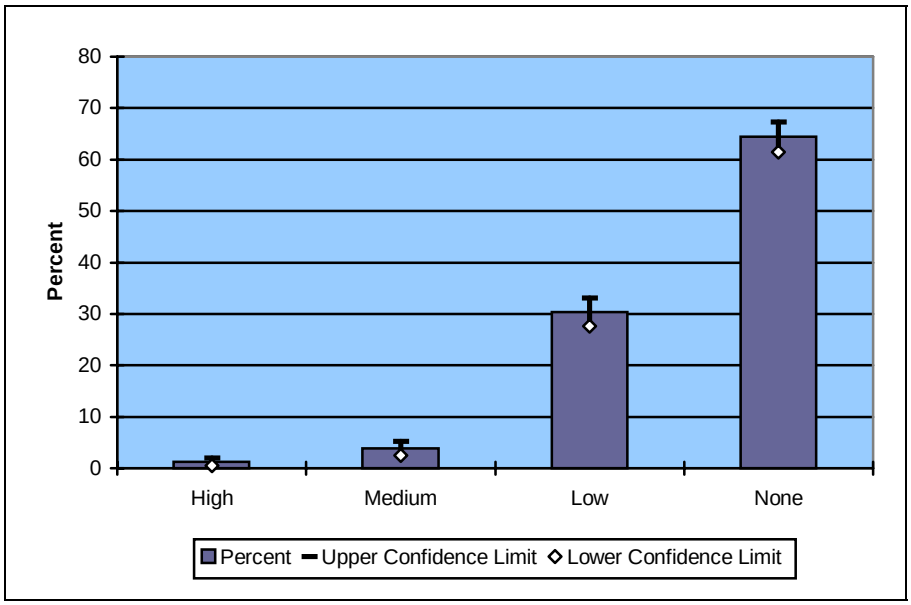


Table 19-1. Self-Reported Likelihood of Contracting HIV, 2000 NH BRFSS

Likelihood	% (95% CI)	Sample Size (N)
High	1.3 (0.5-2.0)	22
Medium	3.9 (2.5-5.2)	49
Low	30.4 (27.6-33.1)	440
None	64.4 (61.4-67.3)	1036

Note: This question was asked only of individuals aged 18-64.

Although few people in New Hampshire considered themselves at risk for HIV, over half (56.0%; 53.0–58.9) of New Hampshire residents had been tested for HIV in their lifetime (excluding tests for blood donation only). There were no significant differences among income or education groups in the proportion of people who reported having an HIV test. However, younger people more frequently reported having been tested for HIV when compared to older individuals, as shown in Table 19-2.

- The 25–34 year old age group had significantly more people who had been tested for HIV (34.8%; 28.8–40.9 were never tested) than any other age group.
- Significantly fewer people in the two older age groups (45–54 and 55–64) reported having an HIV test when compared to two of the younger age groups (25–34, 35–44).

Table 19-2. Never Had HIV Test (outside of blood donation), by Sex, Age, Education, and Income Levels, 2000 NH BRFSS

Demographic	% (95% CI)*	Sample Size (N)
Overall	56.0 (53.0-58.9)	838
Sex		
Male	57.8 (53.3-62.4)	351
Female	54.1 (50.3-58.0)	487
Age		
18-24	56.0 (44.7-67.2)	49
25-34	34.8 (28.8-40.9)	108
35-44	53.0 (48.2-57.8)	248
45-54	67.8 (62.6-73.1)	251
55-64	76.6 (70.8-82.4)	171
Income		
Less than $20,000	56.6 (45.4-67.9)	60
$20,000-$34,999	55.8 (49.1-62.4)	168
$35,000-$49,999	55.6 (48.6-62.6)	158
$50,000 and higher	52.5 (48.1-56.9)	333
Education		
Less than high school graduate	60.2 (48.0-72.5)	57
High school diploma or GED	61.4 (55.7-67.0)	241
Some college or technical school	52.9 (47.6-58.3)	256
College graduate	53.2 (48.2-58.1)	284

Note: This question was asked only of individuals aged 18-64.
*Percentages will not add up to 100% because each estimate represents the percentage of respondents that have never had an HIV test in that demographic category (e.g., male or female).

Among those who had been tested for HIV, the three most commonly cited reasons for the last HIV test were pregnancy (20.1%; 13.5–26.6), to determine if they were infected (16.0%; 8.0–24.0), and as part of a routine checkup (14.5%; 8.0–20.4). Regarding the "where" of HIV testing, individuals identified private doctor (38.6%; 30.1–47.1) and hospital (16.5%; 11.0–22.0) as the most common locations for their last HIV test. Overall, 90.4% (85.1–95.6) of people in New Hampshire who got an HIV test received their results. Of these people, only 21.3% (13.0–29.5) got counseling after receiving their results.

Education is the mainstay of HIV prevention efforts. The prevention message typically includes advice about safe sexual practices and avoiding needle sharing. There is no consensus about when this message should be conveyed. However, young people continue to participate in high-risk activities. Part of the CDC's HIV Prevention Strategic Plan through 2005 includes: "To research, develop, implement, and evaluate evidence-based comprehensive school-based HIV/STD prevention programs that help all adolescents abstain from intercourse and

develop safer sexual practices, particularly youth of color and gay, lesbian, bisexual, transgender, and questioning youth."[3]

As shown in Figure 19-2 and Table 19-3, the majority (76.0%; 73.3–78.6) of New Hampshire residents believed that HIV education should begin in elementary school. Among people who believed HIV education should begin in elementary school, 5th and 6th grades were the most frequent choice of specific grades, with 20.4% (17.9–22.9) and 22.0% (19.3–24.6) of people listing those grades, respectively. Furthermore, 92.6% (91.1–94.1) of New Hampshire residents reported that if they had a sexually active teen, they would advise that person to use condoms. The proportion of people who would give this advice did not differ significantly among parents (91.5%; 89.9–94.0) and non-parents (93.6%; 91.7–95.4).

Figure 19-2. Opinion about Grade to Begin HIV/AIDS Education, 2000 NH BRFSS

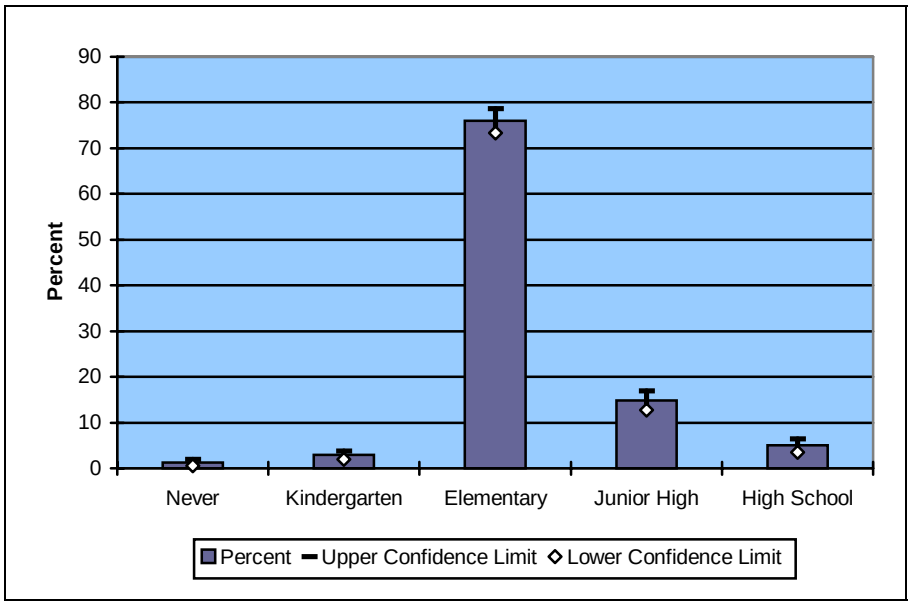


Table 19-3. Opinion about Grade to Begin HIV/AIDS Education, 2000 NH BRFSS

Grade	% (95% CI)	Sample Size (N)
Never	1.3 (0.6-1.9)	17
Kindergarten	2.9 (2.0-3.8)	48
Elementary (Grades 1-6)	76.0 (73.3-78.6)	1121
Junior high (Grades 7-8)	14.8 (12.6-17.0)	206
High school (Grades 9-12)	5.0 (3.5-6.5)	69

Note: This question was asked only of individuals aged 18-64.

For more information about HIV and AIDS prevention efforts in New Hampshire, contact:

The STD/HIV Prevention Program: 603-271-4502

The NH AIDS Hotline 1-800-752-AIDS.

20. Lyme Disease

Lyme disease is an infectious disease caused by the bacterium *Borrelia burgdorferi* that can have a wide array of symptoms and complications. *Borrelia burgdorferi* is primarily carried by deer ticks and can be transmitted to humans by a tick bite. The disease is often characterized by rash and other non-specific symptoms that can include fever, fatigue, headaches, muscle pain, joint pain, and weakness. Occasionally, the disease can be severe and include chronic arthritis, carditis, or neurological problems. When caught early, uncomplicated Lyme disease can be treated with antibiotics; however, the disease does not respond well to treatment when detected in its later stages.

Prevention of Lyme disease focuses primarily on avoiding tick bites. Because ticks are very small and thrive mostly in wooded areas, they are difficult to see in the environment. Protective measures include wearing clothing to cover all exposed skin. Also, any ticks that do get onto skin should be removed immediately, so individuals who spend time in wooded areas should inspect their skin. Insect repellents that contain DEET are also effective in repelling ticks. Table 20-1 summarizes New Hampshire residents' use of these protective measures for Lyme disease when in high-risk areas.

Table 20-1. Use of Protective Measures for Lyme Disease, 2000 NH BRFSS

During the past year, when in high-risk areas… how often you have taken the following measures to protect yourself…

Protective Measures	Always % (95% CI)	Sometimes % (95% CI)	Never % (95% CI)
Wear long pants tucked into socks N=1763	27.6 (25.2-30.1)	27.9 (25.4-30.3)	44.5 (41.8-47.3)
Look for and remove ticks N=1764	52.6 (49.9-55.3)	22.3 (20.0-24.5)	25.2 (22.8-27.5)
Use insect repellent N=1765	35.5 (32.8-38.0)	41.0 (38.3-43.7)	23.5 (21.3-25.8)

In 1999, a Lyme disease vaccine became available for use in adults aged 15–70. The vaccination requires 3 doses (spaced out over 1 year) for optimal protection. Recommendations for vaccination are based on individual assessment of risk: those individuals who spend a lot of time in wooded areas and are commonly exposed to ticks should consider vaccination, according to the Advisory Committee on Immunization Practices. Most people in New Hampshire (52.2%; 49.4–54.9) considered themselves at low risk for Lyme disease as shown in Figure 20-1 and Table 20-2. However, 6.1% (4.6–7.5) classified themselves as high-risk. Overall 54.3% (51.6–57.0) of people in New Hampshire were aware that a vaccine for Lyme disease was available, 2.6% (1.6–3.7) of people had received the vaccine, and 12.0% (9.6–14.4) planned to receive the vaccine in the future.

Figure 20-1. Self-Reported Likelihood of Contracting Lyme Disease, 2000 NH BRFSS

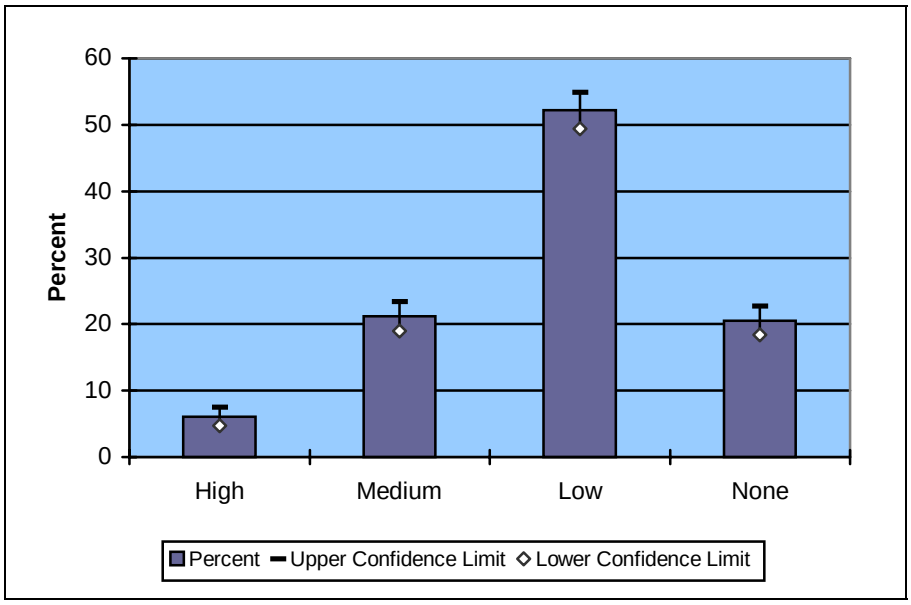


Table 20-2. Self-Reported Likelihood of Contracting Lyme Disease, 2000 NH BRFSS

Likelihood	% (95% CI)	Sample Size (N)
High	6.1 (4.7-7.5)	100
Medium	21.2 (19.0-23.4)	377
Low	52.2 (49.4-54.9)	916
None	20.5 (18.4-22.7)	367

For more information about the New Hampshire Lyme Disease program, contact:

Bureau of Communicable Disease Surveillance

603-271-0279

21. Radon

Radon is a naturally occurring radioactive gas that results from the decay of uranium, which can be found in rocks and soil. Radon gas is considered a carcinogen (a cancer causing compound). It can increase the risk of developing lung cancer. Because of this potential to cause disease, the EPA has set recommendations for the amount of radon that is acceptable in indoor air. These radon levels can also be affected when water that contains radon is aerated and radon is released into the air. Radon gas is colorless and odorless, but can be detected with relatively inexpensive tests available from many hardware stores and air quality companies. Overall, over 50% of people in New Hampshire had their house tested for radon; of these, 31.3% (27.9–34.6) had their home tested as part of a real estate transaction (Figure 21-1 and Table 21-1).

Figure 21-1. Ever Had Home Tested for Radon, 2000 NH BRFSS

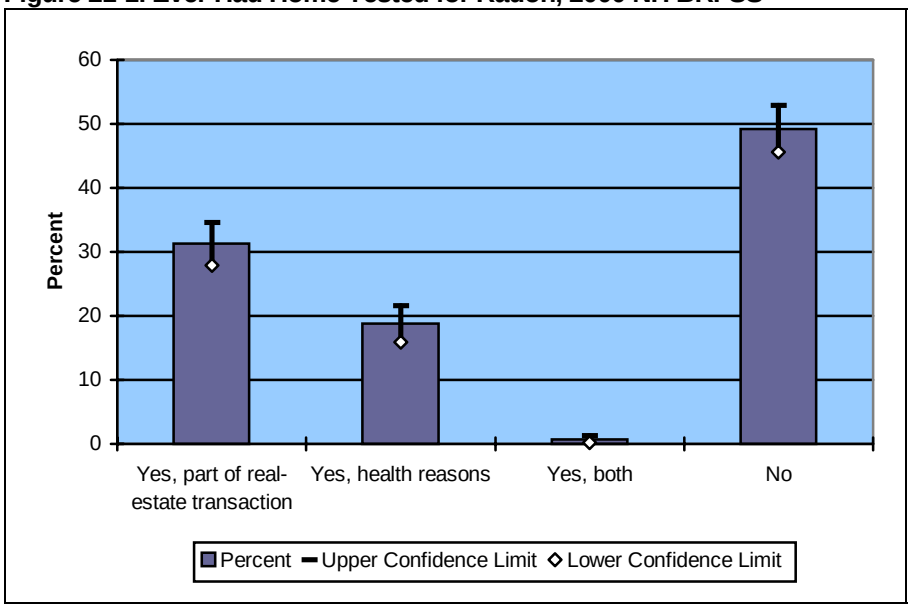


Table 21-1. Ever Had Home Tested for Radon, 2000 NH BRFSS

Ever Had Home Tested	% (95% CI)	Sample Size (N)
Yes, as part of real estate transaction	31.3 (27.9-34.6)	269
Yes, for health reasons	18.8 (15.9-21.6)	163
Yes, for both real estate and health reasons	0.7 (0.2-1.3)	7
No	49.2 (45.6-52.9)	406

Overall, New Hampshire residents were very knowledgeable about radon. The majority of residents had heard of radon (81.2%; 78.9–83.5). Of these people, 74.3% (71.6–76.9) correctly identified it as "a naturally occurring radioactive gas." Further, 53.8% (50.9–56.8) knew how to test radon in air. While 36.2% (33.4–38.9) of people correctly reported that radon could enter the home in water supply, 46.9% (44.0–49.8) did not know (or were not sure) if radon could enter the home through water.

Overall, 81.8% (79.5–84.0) of people believed that radon had unhealthy effects; however, 11.8% (9.9–13.8) of people did not know (or were not sure) if radon affects health. Of those people who did believe radon affects health, 44.8% (41.7–48.0) did not know or were not sure what health effect is associated with radon; 27.0% (24.2–29.8) identified lung cancer as the health effect associated with radon (Table 21-2).

Table 21-2. Health Effects of Radon, 2000 NH BRFSS

What, if any, health effect is most often associated with radon in the air?

Health Effect	% (95% CI)	Sample Size (N)
Lung cancer	27.0 (24.2-29.8)	337
Some other cancer	15.1 (12.6-17.5)	172
Some illness other than cancer	13.1 (10.8-15.4)	153
Don't know or not sure	44.8 (41.7-48.0)	566

HP2010 Objective 8-18: Increase the proportion of persons who live in homes tested for radon concentrations.

Target	20 percent
Baseline	17 percent of the population lived in homes in 1998 that had been tested for radon.

For more information about radon in New Hampshire, contact:

The Bureau of Radiological Health at 1-800-852-3345 ext 4674 (in NH)

or 603-271-4674.

22. Childhood Lead Poisoning

Children affected by lead poisoning are typically exposed to lead through lead paint. Most exposures are the result of leaded dust generated when painted surfaces are allowed to deteriorate or during renovations. Homes built before 1950 present the greatest risk of exposure to lead for children, due to both the widespread use of lead-based paint before 1950, as well the significantly greater concentration of lead in paints at that time. Prior to 1950, it was not uncommon for paint to contain between 30–50% lead by weight. By the mid-1950s, those paint manufacturers who were continuing to produce lead-based paint had voluntarily reduced the concentration to less than 1%. In 1978, the U.S. Consumer's Products Safety Commission (CPSC) banned the use of lead in any residential paint. Today, lead is still allowed in paint for commercial and marine applications.

Because children's brains are still developing, they are very vulnerable to the toxic neurological affects of lead. Lead poisoning during childhood can lead to serious learning disabilities and behavior difficulties. Other body systems can also be affected and symptoms can include anemia, high blood pressure, kidney damage, stomachache, and muscle weakness.

When asked how children typically get lead poisoning during painting projects, 45.6% (42.9–48.3) of New Hampshire residents believed that children get lead poisoning by eating paint chips and 35.9% (33.3–38.6) were aware of the risk of exposure from breathing or ingesting lead dust, as shown in Figure 22-1 and Table 22-1.

Figure 22-1. Lead Poisoning Knowledge, 2000 NH BRFSS

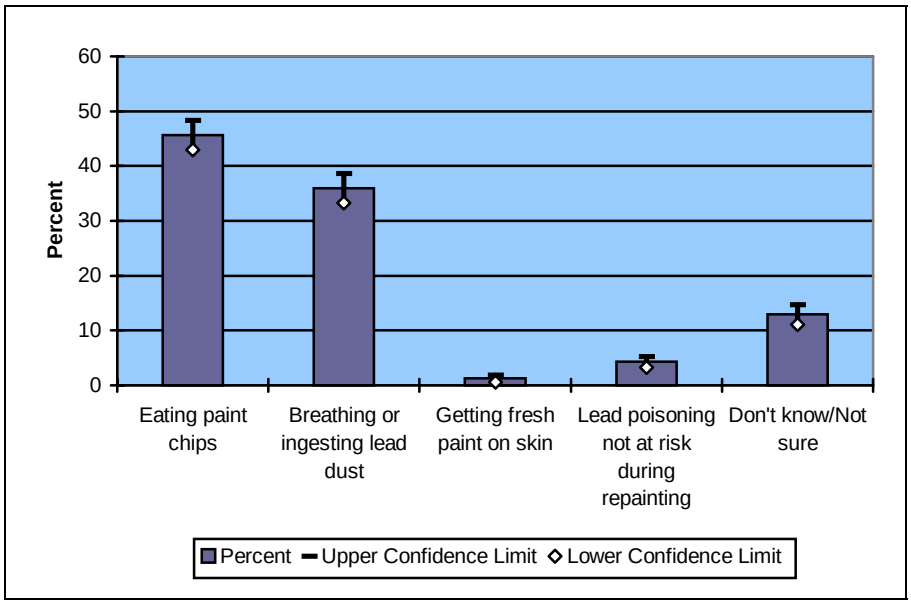


Table 22-1. Lead Poisoning Knowledge, 2000 NH BRFSS

The most common way children get lead poisoning during repainting projects is…

Ways To Get Lead Poisoning:	% (95% CI)	Sample Size (N)
Eating paint chips	45.6 (42.9-48.3)	819
Breathing or ingesting lead dust	35.9 (33.3-38.6)	646
Getting fresh paint on skin	1.3 (0.6-1.9)	23
Lead poisoning is not a risk when repainting	4.3 (3.3-5.3)	88
Don't know or not sure	12.9 (11.1-14.7)	226

According to the 1990 Census, 30% of housing units in New Hampshire were built prior to 1950.[24] However, as shown in Table 22-2, only 5.9% (4.6–7.2) of New Hampshire residents had lead paint in their residence "to the best of their knowledge," according to the 2000 NH BRFSS. Thus, many families may be living in older homes but may be unaware of the widespread use of lead paint prior to 1950.

Table 22-2. Knowledge of Lead Paint in Residence, 2000 NH BRFSS

Knowledge Level	% (95% CI)	Sample Size (N)
Yes	5.9 (4.6-7.2)	104
No	88.6 (86.9-90.3)	1607
Don't know or not sure	5.5 (4.3-6.7)	99

New Hampshire
Childhood Lead Poisoning
Prevention Program

For more information about the New Hampshire Childhood Lead Poisoning Prevention Program, contact:

CLPPP, NH DHHS
6 Hazen Drive
Concord, NH
1-800-897-LEAD (in NH) or 603-271-4507

References

1. U.S. Department of Health and Human Services. *Data Fact Sheet: Asthma Statistics.* U.S. Department of Health and Human Services; National Institutes of Health; National Heart, Lung, and Blood Institute, Publication No.: 55-798. [Available at http://www.nhlbi.nih.gov/health/prof/lung/asthma/asthstat.htm, accessed July 2001]

2. U.S. Department of Health and Human Services. *Diabetes: A Serious Public Health Problem 2001.* U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. [Available at http://www.cdc.gov/diabetes/pubs/glance.htm, accessed August 2001]

3. U.S. Department of Health and Human Services. *HIV Prevention Strategic Plan Through 2005.* U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. January 2001. [Available at http://www.cdc.gov/hiv/pubs/facts.htm, accessed August 2001]

4. U.S. Department of Health and Human Services. *Mental Health: A Report of the Surgeon General – Executive Summary.* Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center of Mental Health Services, National Institutes Of Health, National Institute of Mental Health, 1999. [Available at http://www.mentalhealth.org/specials/surgeongeneralreport/home.html]

5. Murray, C.L. and Lopez, A.D. (Eds.) *The Global Burden of Disease. A Comprehensive Assessment of Mortality and Disability from Diseases, Injuries, and Risk Factors in 1990 and Projected to 2020.* Cambridge, MA; Harvard University, 1996.

6. Kasper J.D., Giovannini T.A., Hoffman C. *Gaining and Losing Health Insurance: Strengthening the Evidence for Effects on Access to Care and Health Outcomes. Med Care Res Rev* 2000 Sep; 57(3):298-318.

7. NH Department of Health and Human Services. *Health Insurance Coverage and the Uninsured in New Hampshire: Results from the New Hampshire Health Insurance Coverage and Access Survey.* Concord, NH: NH Department of Health and Human Services, Office of Planning and Research, 1999. [Available at http://www.dhhs.state.nh.us/Planning/HlthCSys.nsf/610f5f1531cb29fb8525682a00476024?OpenView; accessed on August 2001]

8. U.S. Department of Health and Human Services. *America's Families Care: A Report on the Needs of America's Family Caregivers.* U.S.

Department of Health and Human Services, Administration on Aging, 2000. [Available at http://www.aoa.gov/carenetwork/report.html, accessed August 2001]

9. American Cancer Society website: Tobacco and Cancer. www.cancer.org/tobacco; accessed July 2001.

10. U.S. Department of Health and Human Services. *Targeting Tobacco Use: The Nation's Leading Cause of Death 2001.* U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. [Available at http://www.cdc.gov/tobacco/overview/oshaag.htm, accessed July 2001]

11. American Cancer Society website: Women and Smoking. www.cancer.org/tobacco; accessed August 2001.

12. U.S. Department of Health and Human Services. *Women and Smoking: A Report of the Surgeon General 2001 – At a Glance.* U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; National Center for Chronic Disease Prevention and Health Promotion. Office on Smoking and Health, 2001. [Available at: www.cdc.gov/tobacco; accessed September 2001]

13. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance – United States, 1999. MMWR. June 9, 2000: 49 (SS05); 1-96. [Available at http://www.cdc.gov/mmwr/preview/mmwrhtml/ss4905a1.htm; accessed August 2001]

14. Siegel, M. *Involuntary Smoking in the Restaurant Workplace: A Review of Employee Exposure and Health Effects. JAMA*, July 28, 1993; 270 (4): 178-181.

15. U.S. Department of Health and Human Services. *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report.* U.S. Department of Health and Human Services; National Institutes of Health; National Heart, Lung, and Blood Institute, 1998, Publication No.: 98-4083. [Available at http://www.nhlbi.nih.gov/guidelines/obesity/ob_gdlns.pdf, accessed June 2001]

16. U.S. Department of Health and Human Services. *Physical Activity and Health: A Report of the Surgeon General – Executive Summary.* Rockville, MD: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, The President's Council on Physical Fitness and Sports, 1996. [Available at http://www.cdc.gov/nccdphp/sgr/sgr.htm, accessed July 2001]

17. U.S. Department of Agriculture. *Dietary Guidelines for Americans, 2000.* [Available at http://www.nal.usda.gov/fnic/dga/index.html, accessed August 2001]

18. National Institutes of Health; National Heart, Lung, and Blood Institute website: http://aspe.hhs.gov/sp/asthma/overview.htm#epidemic, accessed July 2001.

19. American Academy of Allergy, Asthma, and Immunology; American College of Allergy, Asthma, and Immunology; Joint Council on Allergy, Asthma, and Immunology. Practice Parameters for the Diagnosis and Treatment of Asthma. [Available at ww.jcaai.org/Param/Asthm.htm; accessed July 2001]

20. American Diabetes Association. Position Statement: Standards of Medical Care for Patients with Diabetes Mellitus. *Diabetes Care* 2001 Vol. 24, Supp. 1. [Available at http://journal.diabetes.org/CareSup1Jan01.htm, accessed July 2001]

21. U.S. Department of Health and Human Services. *Targeting Arthritis: The Nation's Leading Cause of Disability 2001.* U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. [Available at http://www.cdc.gov/nccdphp/art-aag.htm, accessed August 2001]

22. Chalsma A., Horne J., Taylor, J. *Cancer Incidence and Mortality in New Hampshire, 1998* Concord, NH: NH Department of Health and Human Services, Office of Community and Public Health, Bureau of Health Statistics and Data Management, 2001. [Available at http://www.dhhs.state.nh.us/CommPublicHealth/HealthStats.nsf/f61418128a2d2139852567e000458f1d?OpenView, accessed October 2001]

23. American Cancer Society website: www.cancer.org; accessed July 2001.

24. NH Office of State Planning website: http://www.state.nh.us/osp/planning/sdc.html, accessed December 2001

2000 NH BRFSS Questionnaire

CORE SECTIONS

Section 1: Health Status
Section 2: Health Care Access
Section 3: Asthma
Section 4: Diabetes
Section 5: Care Giving
Section 6: Exercise
Section 7: Tobacco Use
Section 8: Fruits and Vegetables
Section 9: Weight Control
Section 10: Demographics
Section 11: Women's Health
Section 12: HIV/AIDS
Module 1: Diabetes
Module 14: Arthritis
Module 16: Folic Acid

STATE-ADDED

Lyme disease
Prostate
Radon
Smoking Restaurant
Childhood lead
Asthma (child)
5 A DAY
Activity limitations (Years of Health Life)

Section 1: Health Status

1.1. Would you say that in general your health is
Please Read
a. Excellent
b. Very good
c. Good
d. Fair
e. Poor
Don't know/Not Sure
Refused

1.2. Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?
a. Number of days
b. None
Don't know/Not sure
Refused

1.3. Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?
a. Number of days
b. None **If Q1.2 also "None," go to Q2.1**
Don't know/Not sure
Refused

1.4. During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?
a. Number of days
b. None
Don't know/Not sure
Refused

Section 2: Health Care Access

2.1. Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?
a. Yes
b. No **Go to Q2.3a**
Don't know/Not sure **Go to Q2.6**
Refused **Go to Q2.6**

2.2. Medicare is a coverage plan for people 65 or over and for certain disabled people. Do you have Medicare?
a. Yes **Go to Q2.6**
b. No
Don't know/not sure
Refused

2.3. What type of health care coverage do you use to pay for most of your medical care?
Please Read
a. Your employer **Go to Q2.4**
b. Someone else's employer **Go to Q2.4**
c. A plan that you or someone else buys on your own **Go to Q2.4**
d. Medicare **Go to Q2.6**
e. Medicaid or Medical Assistance **Go to Q2.4**
f. The military, CHAMPUS, TriCare, or the VA **Go to Q2.4**
g. The Indian Health Service **Go to Q2.4**
h. Some other source **Go to Q2.4**
i. None **Go to Q2.5**
Don't know/Not sure **Go to Q2.4**
Refused **Go to Q2.4**

2.3a. There are some types of coverage you may not have considered. Please tell me if you have any of the following:
a. Your employer
b. Someone else's employer
c. A plan that you or someone else buys on your own
d. Medicare **Go to Q2.6**
e. Medicaid or Medical Assistance

f. The military, CHAMPUS, TriCare, or the VA
g. The Indian Health Service
h. Some other source
i. None **Go to Q2.5**
Don't know/Not sure **Go to Q2.6**
Refused **Go to Q2.6**

2.4. During the past 12 months, was there any time that you did not have any health insurance or coverage?
a. Yes **Go to Q2.6**
b. No **Go to Q2.6**
Don't know/Not sure **Go to Q2.6**
Refused **Go to Q2.6**

2.5. About how long has it been since you had health care coverage?
Read Only if Necessary
a. Within the past 6 months (1 to 6 months ago)
b. Within the past year (6 to 12 months ago)
c. Within the past 2 years (1 to 2 years ago)
d. Within the past 5 years (2 to 5 years ago)
e. 5 or more years ago
Don't know/Not sure
Never
Refused

2.6. Was there a time during the last 12 months when you needed to see a doctor, but could not because of the cost?
a. Yes
b. No
Don't know/Not sure
Refused

2.7. About how long has it been since you last visited a doctor for a routine checkup?
Read Only if Necessary
a. Within the past year (1 to 12 months ago)
b. Within the past 2 years (1 to 2 years ago)
c. Within the past 5 years (2 to 5 years ago)
d. 5 or more years ago
Don't know/Not sure
Never
Refused

Section 3: Asthma

3.1 Did a doctor ever tell you that you had asthma?
a. Yes
b. No **Go to Q4.1**
Don't know/Not sure **Go to Q4.1**
Refused **Go to Q4.1**

3.2 Do you still have asthma?
a. Yes
b. No
Don't know/Not sure
Refused

Section 4: Diabetes

4.1. Have you ever been told by a doctor that you have diabetes?
a. Yes
b. Yes, but female told only during pregnancy
c. No
Don't know/Not sure
Refused

4.1SA Has anyone in your immediate family (grandmother, grandfather, mother, father) ever been told by a doctor that they have diabetes?
a. Yes
b. No
Don't know/Not sure
Refused

Section 5: Care Giving

5.1. There are situations where people provide regular care or assistance to a family member or friend who is elderly or has a long-term illness or disability. During the past month, did you provide any such care or assistance to a family member or friend who is 60 years of age or older?
a. Yes
b. No
Don't Know/Not Sure
Refused

5.2. Who would you call to arrange short or long-term care in the home for an elderly relative or friend who was no longer able to care for themselves?
Read Only if Necessary
a. Relative or friend
b. Would provide care myself
c. Nursing home
d. Home health service
e. Personal physician
f. Area Agency on Aging
g. Hospice
h. Hospital nurse
i. Minister/priest/rabbi
j. Other
i. Don't know who to call
Refused

Section 6: Exercise

The next few questions are about exercise, recreation, or physical activities other than your regular job duties.

6.1. During the past month, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?
a. Yes
b. No **Go to Q7.1**
Don't know/Not sure **Go to Q7.1**
Refused **Go to Q7.1**

6.2. What type of physical activity or exercise did you spend the most time doing during the past month?
Activity **[specify]**: **See coding list A**
Refused **Go to Q6.6**

Ask Q6.3 only if answer to Q6.2 is running, jogging, walking, or swimming. All others, go to Q6.4.

6.3. How far did you usually walk/run/jog/swim?
Miles and tenths
Don't know/Not sure
Refused

6.4. How many times per week or per month did you take part in this activity during the past month?
a. Times per week
b. Times per month
Don't know/Not sure
Refused

6.5. And when you took part in this activity, for how many minutes or hours did you usually keep at it?

Hours and minutes
Don't know/Not sure
Refused

6.6. Was there another physical activity or exercise that you participated in during the last month?
a. Yes
b. No **Go to Q7.1**
Don't know/Not sure **Go to Q7.1**
Refused **Go to Q7.1**

6.7. What other type of physical activity gave you the next most exercise during the past month?
Activity **[specify] See coding list A**
Refused **Go to Q7.1**

Ask Q6.8 only if answer to Q6.7 is running, jogging, walking, or swimming. All others go to Q6.9.

6.8. How far did you usually walk/run/jog/swim?
Miles and tenths
Don't know/Not sure
Refused

6.9. How many times per week or per month did you take part in this activity?
a. Times per week
b. Times per month
Don't know/Not sure
Refused

6.10. And when you took part in this activity, for how many minutes or hours did you usually keep at it?
Hours and minutes
Don't know/Not sure
Refused

Section 7: Tobacco Use

7.1. Have you smoked at least 100 cigarettes in your entire life?
a. Yes
b. No **Go to Q8.1**
Don't know/Not sure **Go to Q8.1**
Refused **Go to Q8.1**

7.2. Do you now smoke cigarettes everyday, some days, or not at all?
a. Everyday
b. Some days **Go to Q7.3a**
c. Not at all **Go to Q7.5**
Refused **Go to Q8.1**

7.3. On the average, about how many cigarettes a day do you now smoke?
Number of cigarettes **[76 = 76 or more] Go to Q7.4**
Don't know/Not sure **Go to Q7.4**
Refused **Go to Q7.4**

7.3a. On the average, when you smoked during the past 30 days, about how many cigarettes did you smoke a day?
Number of cigarettes **[76 = 76 or more] Go to Q8.1**
Don't know/Not sure **Go to Q8.1**
Refused **Go to Q8.1**

7.4. During the past 12 months, have you quit smoking for 1 day or longer?
a. Yes **Go to Q8.1**
b. No **Go to Q8.1**
Don't know/Not sure **Go to Q8.1**
Refused **Go to Q8.1**

7.5. About how long has it been since you last smoked cigarettes regularly, that is, daily?
Read Only if Necessary
a. Within the past month (0 to 1 month ago)
b. Within the past 3 months (1 to 3 months ago)
c. Within the past 6 months (3 to 6 months ago)
d. Within the past year (6 to 12 months ago)
e. Within the past 5 years (1 to 5 years ago)
f. Within the past 15 years (5 to 15 years ago)
g. 15 or more years ago
Don't know/Not sure
Never smoked regularly
Refused

Section 8: Fruits and Vegetables

These next questions are about the foods you usually eat or drink. Please tell me how often you eat or drink each one, for example, twice a week, three times a month, and so forth. Remember, I am only interested in the foods you eat. Include all foods you eat, both at home and away from home

8.1. How often do you drink fruit juices such as orange, grapefruit, or tomato?
a. Per day
b. Per week
c. Per month
d. Per year
e. Never
Don't know/Not sure
Refused

8.2. Not counting juice, how often do you eat fruit?
a. Per day
b. Per week
c. Per month
d. Per year
e. Never
Don't know/Not sure
Refused

8.3. How often do you eat green salad?
a. Per day
b. Per week
c. Per month
d. Per year
e. Never
Don't know/Not sure
Refused

8.4. How often do you eat potatoes not including french fries, fried potatoes, or potato chips?
a. Per day
b. Per week
c. Per month
d. Per year
e. Never
Don't know/Not sure
Refused

8.5. How often do you eat carrots?
a. Per day
b. Per week
c. Per month
d. Per year
e. Never
Don't know/Not sure
Refused

8.6. Not counting carrots, potatoes, or salad, how many servings of vegetables do you usually eat?
a. Per day
b. Per week
c. Per month
d. Per year
e. Never
Don't know/Not sure
Refused

Section 9: Weight Control

9.1. Are you now trying to lose weight?
a. Yes **Go to Q. 9.3**
b. No
Don't know/Not sure
Refused

9.2. Are you now trying to maintain your current weight, that is to keep from gaining weight?
a. Yes
b. No **Go to Q. 9.5**
Don't know/Not sure **Go to 9.5**
Refused **Go to Q. 9.5**

9.3. Are you eating either fewer calories or less fat to...lose weight? **[if "Yes" on Q. 9.1] or** keep from gaining weight? **[if "Yes" on Q. 9.2]**
a. Yes, fewer calories
b. Yes, less fat
c. Yes, fewer calories and less fat
d. No
Don't know/Not sure
Refused

9.4. Are you using physical activity or exercise to lose weight? **[if "Yes" on Q. 9.1] or** keep from gaining weight? **[if "Yes" on Q. 9.2]**
a. Yes
b. No
Don't know/Not sure
Refused

9.5. In the past 12 months, has a doctor, nurse, or other health professional given you advice about your weight?
a. Yes, lose weight
b. Yes, gain weight
c. Yes, maintain current weight
d. No
Don't know/Not sure
Refused

Section 10: Demographics

10.1. What is your age?
Code age in years
Don't know/Not sure
Refused

10.2. What is your race? Would you say: **Please Read**
a. White
b. Black
c. Asian, Pacific Islander
d. American Indian, Alaska Native **or**
e. Other: **[specify]**
Don't know/Not sure
Refused

10.3. Are you of Spanish or Hispanic origin?
a. Yes
b. No
Don't know/Not sure
Refused

10.4. Are you:
a. Married
b. Divorced
c. Widowed
d. Separated
e. Never been married **or**
f. A member of an unmarried couple
Refused

10.5. How many children live in your household who are...
Please Read
a. less than 5 years old?
b. 5 through 12 years old?
c. 13 through 17 years old?

10.6. What is the highest grade or year of school you completed
Read Only if Necessary
a. Never attended school or only attended kindergarten
b. Grades 1 through 8 (Elementary)
c. Grades 9 through 11 (Some high school)
d. Grade 12 or GED (High school graduate)
e. College 1 year to 3 years (Some college or technical school)
f. College 4 years or more (College graduate)
Refused

10.7. Are you currently:
Please Read
a. Employed for wages
b. Self-employed
c. Out of work for more than 1 year
d. Out of work for less than 1 year
e. Homemaker
f. Student
g. Retired
h. Unable to work
Refused

10.8. Is your annual household income from all sources:
Read as Appropriate
a. Less than $25,000 ($20,000 to less than $25,000)
b. Less than $20,000 ($15,000 to less than $20,000)
c. Less than $15,000 ($10,000 to less than $15,000)
d. Less than $10,000
e. Less than $35,000 ($25,000 to less than $35,000)
f. Less than $50,000 ($35,000 to less than $50,000)
g. Less than $75,000 ($50,000 to $75,000)
h. $75,000 or more
Don't know/Not sure
Refused

10.9. Have you ever served on active duty in the United States Armed Forces, either in the regular military or in a National Guard or military reserve unit?
a. Yes
b. No **Go to Q10.12**
Don't know/Not sure **Go to 10.12**
Refused **Go to Q10.12**

10.10. Which of the following best describes your current military status?
Are you: **Please Read**
a. Currently on active duty **Go to Q10.12**
b. Currently in reserves **Go to Q10.12**
c. No longer in military service
Don't know/Not sure **Go to Q10.12**
Refused **Go to Q10.12**

10.11. In the last 12 months have you received some or all of your health care from VA facilities?
a. Yes, all of my health care
b. Yes, some of my health care
c. No, no VA health care received
Don't know/not sure
Refused

10.12. About how much do you weigh without shoes?
Weight
Don't know/Not sure
Refused

10.13. How much would you like to weigh?
Weight
Don't know/Not sure
Refused

10.14. About how tall are you without shoes?
Height
Don't know/Not sure
Refused

10.15. What county do you live in?
FIPS county code
Don't know/not sure
Refused

Q # 10.15a SA What town do you live in?

Town code

Don't know/not sure
Refused

Q # 10.15a SA What is your ZIP Code?
ZIP code

Don't know/not sure
Refused

10.16. Do you have more than one telephone number in your household?
a. Yes
b. No **Go to Q10.18**
Refused **Go to Q10.18**

10.17. How many residential telephone numbers do you have?
Total telephone numbers **[8 = 8 or more]**
Refused

10.18. Indicate sex of respondent. **Ask Only if Necessary**
Male **Go to Section 12: HIV/AIDS**
Female

Section 11: Women's Health

11.1. A mammogram is an x-ray of each breast to look for breast cancer. Have you ever had a mammogram?
a. Yes
b. No **Go to Q11.4**
Don't know/Not sure **Go to Q11.4**
Refused **Go to Q11.4**

11.2. How long has it been since you had your last mammogram?
Read only if Necessary
a. Within the past year (1 to 12 months ago)
b. Within the past 2 years (1 to 2 years ago)
c. Within the past 3 years (2 to 3 years ago)
d. Within the past 5 years (3 to 5 years ago)
e. 5 or more years ago
Don't know/Not sure
Refused

11.3. Was your last mammogram done as part of a routine checkup, because of a breast problem other than cancer, or because you've already had breast cancer?
a. Routine checkup
b. Breast problem other than cancer
c. Had breast cancer
Don't know/Not sure
Refused

11.4. A clinical breast exam is when a doctor, nurse, or other health professional feels the breast for lumps. Have you ever had a clinical breast exam?
a. Yes
b. No **Go to Q11.7**
Don't know/Not sure **Go to Q11.7**
Refused **Go to Q11.7**

11.5. How long has it been since your last breast exam?
Read Only if Necessary
a. Within the past year (1 to 12 months ago)
b. Within the past 2 years (1 to 2 years ago)
c. Within the past 3 years (2 to 3 years ago)
d. Within the past 5 years (3 to 5 years ago)
e. 5 or more years ago
Don't know/Not sure
Refused

11.6. Was your last breast exam done as part of a routine checkup, because of a breast problem other than cancer, or because you've already had breast cancer?
a. Routine Checkup
b. Breast problem other than cancer
c. Had breast cancer

11.7. A Pap smear is a test for cancer of the cervix. Have you ever had a Pap smear?
a. Yes
b. No **Go to Q11.10**
Don't know/Not sure **Go to Q11.10**
Refused **Go to Q11.10**

11.8. How long has it been since you had your last Pap smear?
Read Only if Necessary

a. Within the past year (1 to 12 months ago)
b. Within the past 2 years (1 to 2 years ago)
c. Within the past 3 years (2 to 3 years ago)
d. Within the past 5 years (3 to 5 years ago)
e. 5 or more years ago
Don't know/Not sure
Refused

11.9. Was your last Pap smear done as part of a routine exam, or to check a current or previous problem?
a. Routine exam
b. Check current or previous problem
Other
Don't know/Not sure
Refused

11.10. Have you had a hysterectomy?
a. Yes **Go to Section 12: HIV/AIDS**
b. No
Don't know/Not sure
Refused

If respondent 45 years old or older, go to Section 12: HIV/AIDS

11.11 To your knowledge, are you now pregnant?
a. Yes
b. No
Don't know/Not sure
Refused

Section 12: HIV/AIDS

The next few questions are about the national health problem of HIV, the virus that causes AIDS. Please remember that your answers are strictly confidential and that you don't have to answer every question if you don't want to.

12.1. If you had a child in school, at what grade do you think he or she should begin receiving education in school about HIV infection and AIDS?
a. Grade
b. Kindergarten
c. Never
Don't know/Not sure
Refused

12.2. If you had a teenager who was sexually active, would you encourage him or her to use a condom?
a. Yes
b. No
Would give other advice
Don't know/Not sure
Refused

12.3. What are your chances of getting infected with HIV, the virus that causes AIDS?
Would you say: **Please Read**
a. High
b. Medium
c. Low **or**
d. None
Not applicable **Go to Q12.7a**
Don't know/Not sure
Refused

12.4. Have you donated blood since March 1985?
a. Yes
b. No **Go to Q12.6a**
Don't know/Not sure **Go to Q12.6a**
Refused **Go to Q12.6a**

12.5. Have you donated blood in the past 12 months?
a. Yes
b. No
Don't know/Not sure
Refused

12.6. Except for tests you may have had as part of blood donations, have you ever been tested for HIV?
a. Yes **Go to Q12.7**
b. No **Go to Closing Statement**
Don't know/Not sure **Go to Closing Statement**
Refused **Go to Closing Statement**

12.6a. Have you ever been tested for HIV?
a. Yes **Go to Q12.7a**
b. No
Don't know/Not sure
Refused

12.7. Not including your blood donations, have you been tested for HIV in the past 12 months?
a. Yes **Go to Q12.8**
b. No
Don't know/Not sure
Refused

12.7a. Have you been tested for HIV in the past 12 months?
a. Yes
b. No
Don't know/Not sure
Refused

12.8. What was the main reason you had your last test for HIV?
Read Only if Necessary
a. For hospitalization or surgical procedure
b. To apply for health insurance
c. To apply for life insurance
d. For employment
e. To apply for a marriage license
f. For military induction or military service
g. For immigration
h. Just to find out if you were infected
I. Because of referral by a doctor
j. Because of pregnancy
k. Referred by your sex partner
l. Because it was part of a blood donation process
m. For routine check-up
n. Because of occupational exposure
o. Because of illness
p. Because I am at risk for HIV
q. Other
Don't know/Not sure
Refused

12.9. Where did you have your last test for HIV?
a. Private doctor, HMO
b. Blood bank, plasma center, Red Cross
c. Health department
d. AIDS clinic, counseling, testing site
e. Hospital, emergency room, outpatient clinic

f. Family planning clinic
g. Prenatal clinic, obstetrician's office
h. Tuberculosis clinic
I. STD clinic
j. Community health clinic
k. Clinic run by employer
l. Insurance company clinic
m. Other public clinic
n. Drug treatment facility
o. Military induction or military service site
p. Immigration site
q. At home, home visit by nurse or health worker
r. At home using self-sampling kit
s. In jail or prison
t. Other
Don't know/Not sure
Refused

12.10. Did you receive the results of your last test?
a. Yes
b.
Don't know/Not sure
Refused

12.11. Did you receive counseling or talk with a health care professional about the results of your test?
a. Yes
b. No
Don't know/Not sure
Refused

Transition to Modules and/or State-added Questions

Finally, I have just a few questions left about some other health topics.

Module 1: Diabetes

1. How old were you when you were told you have diabetes?
Code age in years **[97 = 97 and older]**
Don't know/Not sure
Refused

2. Are you now taking insulin?
a. Yes
b. No
Refused

3. Are you now taking diabetes pills?
a. Yes
b. No
Don't know/Not sure
Refused

4. About how often do you check your blood for glucose or sugar? Include times when checked by a family member or friend, but do not include times when checked by a health professional.
a. Times per day
b. Times per week
c. Times per month
d. Times per year
e. Never
Don't know/Not sure
Refused

5. About how often do you check your feet for any sores or irritations? Include times when checked by a family member or friend, but do not include times when checked by a health professional.
a. Times per day
b. Times per week
c. Times per month
d. Times per year
e. Never
f. No feet
Don't know/Not sure
Refused

6. Have you had any sores or irritations on your feet that took more than four weeks to heal?
a. Yes
b. No
Don't know/Not sure
Refused

7. About how many times in the past 12 months have you seen a doctor, nurse, or other health professional for your diabetes?
a. Number of times
b. None
Don't know/Not sure
Refused

8. A test for hemoglobin "A one C" measures the average level of blood sugar over the past three months. About how many times in the past 12 months has a doctor, nurse, or other health professional checked you for hemoglobin "A one C"?
a. Number of times **[76 = 76 or more]**
b. None
c. Never heard of hemoglobin "A one C" test
Don't know/Not sure
Refused

If "no feet" to Q5, go to Q10

9. About how many times in the past 12 months has a health professional checked your feet for any sores or irritations?
a. Number of times
b. None
Don't know/Not sure
Refused

10. When was the last time you had an eye exam in which the pupils were dilated? This would have made you temporarily sensitive to bright light.
Read Only if Necessary
a. Within the past month (0 to 1 month ago)
b. Within the past year (1 to 12 months ago)
c. Within the past 2 years (1 to 2 years ago)
d. 2 or more years ago
e. Never
Don't know/Not sure
Refused

11. Has a doctor ever told you that diabetes has affected your eyes or that you had retinopathy?
a. Yes
b. No
Don't know/Not sure
Refused

12. Have you ever taken a course or class in how to manage your diabetes yourself?
a. Yes
b. No
Don't know/Not sure
Refused

Module 14: Arthritis

1. During the past 12 months, have you had pain, aching, stiffness or swelling in or around a joint?

a. Yes
b. No **Go to Q4**
Don't know/Not sure **Go to Q4**
Refused **Go to Q4**

2. Were these symptoms present on most days for at least one month?
a. Yes
b. No
Don't know/Not sure
Refused

3. Are you now limited in any way in any activities because of joint symptoms?
a. Yes
b. No
Don't know/Not sure
Refused

4. Have you ever been told by a doctor that you have arthritis?
a. Yes
b. No **Go to Q16.1**
Don't know/Not sure **Go to Q16.1**
Refused **Go to Q16.1**

5. What type of arthritis did the doctor say you have?
Read Only if Necessary
a. Osteoarthritis/degenerative arthritis
b. Rheumatism
c. Rheumatoid Arthritis
d. Lyme disease
e. Other **[specify]**
f. Never saw a doctor
Don't know/Not sure
Refused

6. Are you currently being treated by a doctor for arthritis?
a. Yes
b. No
Don't know/Not sure
Refused

Module 16: Folic Acid

1. Do you currently take any vitamin pills or supplements?
a. Yes
b. No **Go to Q5**
Don't know/Not sure **Go to Q5**
Refused **Go to Q5**

2. Are any of these a multivitamin?
a. Yes **Go to Q4**
b. No
Don't know/Not sure
Refused

3. Do any of the vitamin pills or supplements you take contain folic acid?
a. Yes
b. No **Go to Q5**
Don't know/Not sure **Go to Q5**
Refused **Go to Q5**

4. How often do you take this vitamin pill or supplement?
a. Times per day
b. Times per week
c. Times per month
Don't know/Not sure
Refused

If respondent 45 years old or older, go to next module.

5. Some health experts recommend that women take 400 micrograms of the B vitamin folic acid, for which one of the following reasons...
Please Read
a. To make strong bones
b. To prevent birth defects
c. To prevent high blood pressure
d. Some other reason
Don't know/Not sure
Refused

NH Module 1: Lyme Disease

S01. How would you rate your own chances of getting Lyme disease in the coming year?
a. High
b. Medium
c. Low
d. None
Don't know/Not sure
Refused

S02. Are you aware that there is a vaccine for Lyme disease?
a. Yes
b. No
Don't know/Not sure
Refused

S03. Have you ever received the Lyme disease vaccine?
a. Yes
b. No
Don't know/Not sure
Refused

S04. Do you plan on receiving the Lyme disease vaccine in the future?
a. Yes
b. No
Don't know/Not sure
Refused

Many methods have been suggested to protect oneself from getting Lyme disease from a tick bite. During the past year, when in high risk areas, such as wooded or grassy areas, please tell me how often you have taken the following measures to protect yourself:

S05a. Wearing long pants tucked into socks.
a. Always
b. Sometimes
c. Never
Don't know/Not sure
Refused

S05b. Looking for ticks on yourself and removing them.
a. Always
b. Sometimes
c. Never
Don't know/Not sure
Refused

S05c. Using an insect repellent on your skin or clothes.
a. Always
b. Sometimes
c. Never
Don't know/Not sure
Refused

NH Module 2: Prostate Cancer

S01. Have you heard of the prostate-specific antigen or PSA test to check for prostate cancer?
a. Yes
b. No

Don't know/Not sure
Refused

If the answer is YES and person is male, then ask the rest of the questions in the PSA section. If person is female skip to radon.

S02. Have you ever had a PSA test?
a. Yes
b. No
Don't know/Not sure
Refused

S03. How long has it been since your last PSA test?
a. Within the past year (1 to 12 months ago)
b. Within the past 2 years (1 to 2 years ago)
c. Within the past 3 years (2 to 3 years ago)
d. Within the past 5 years (3 to 5 years ago)
e. 5 or more years ago
Don't know/Not sure
Refused

NH Module 3: Radon

S01. Have you heard of radon?
a. Yes
b. No
Don't know/Not sure
Refused

S02. Which best describes radon?
a. a naturally occurring radioactive gas
b. a man-made hazardous substance
c. a by-product of nuclear power generation
Don't know/Not sure
Refused

S03. Do you believe that exposure to radon can have an affect on your health?
a. yes it is unhealthy
b. has little or no affect on health
Don't know/Not sure
Refused

S04. What, if any, health effect is most often associated with radon in the air?
a. Lung cancer
b. Some other cancer
c. Some illness other than cancer
Don't know/Not sure
Refused

S05. Do you know how to test a home for radon in the air?
a. Yes
b. No
Don't know/Not sure
Refused

S06. Have you had your present home, or a previous residence tested for radon in the air? (Perhaps during a real estate transaction)
a. Yes, as part of a real estate transaction
b. Yes, but not part of a real estate transaction
c. Both of the above
d. No
Don't know/Not sure
Refused

S07. Can radon gas can enter a home dissolved in the water supply?
a. Yes
b. No
Don't know/Not sure
Refused

NH Module 4: Smoke-free Dining

S01. On average how often do you eat at a restaurant?
a. Less than Once a month
b. 1-4 times a month
c. 5-8 times a month
d. 9-12 times a month
e. 13 or more times a month
f. Never
Don't know/Not sure
Refused

S02. Do you think that smoking in restaurants should be allowed without restriction, should be permitted only in designated areas, or should not be allowed at all?
a. Allowed without restriction
b. Permitted only in designated areas
c. Not allowed at all
Don't know/Not sure
Refused

S03. When you dine out, which seating do you request?
a. Smoking
b. Non-smoking
c. First available
d. It depends on who I am with
Don't know/Not sure
Refused

S04. If restaurants were completely smoke-free, would you eat out more often, less often, or about the same as you do now?
a. More often
b. About the same
c. Less often
Don't know/Not sure
Refused

S05. Would you be in favor of banning smoking in restaurants by legislation?
a. Yes by state law
b. Yes by local ordinance
c. Yes by federal law
d. No
Don't know/Not sure
Refused

NH Module 5: Childhood Lead Poisoning

S01. Have you or any member of your family done any home repainting projects in the last 6 months?
a. Yes
b. No
Don't know/Not sure
Refused

S02. Which of the following do you think is the most common way that children get lead poisoning during repainting projects?
a. Eating paint chips
b. Breathing or ingesting lead dust
c. Getting fresh paint on their skin
d. Lead poisoning is not a risk during repainting projects.
Don't know/Not sure
Refused

S03. As far as you know, is there any lead paint in your place of residence?
a. Yes
b. No
Don't know/Not sure
Refused

S04. When was your house or apartment building built?
a. Before 1958

b. Between 1959-1977
c. After 1978
Don't know/Not sure
Refused

NH Module 6: Asthma

S01. Did a doctor ever tell you that a child of yours has asthma ?

a. Yes
b. No
Don't know/Not sure
Refused

S02. Does your child take medication for his/her asthma?

a. No medication
b. Have used medication
Don't know/Not sure
Refused

NH Module 7: 5 A Day for Better Health

S01. Have you heard of the program, "Five A Day for Better Health?"

a. Yes
b. No
Don't know/Not sure
Refused

S02. What is the 5 A Day program emphasis?

a. The 5 food groups
b. Fruits and Vegetables
c. Weight control
Don't know/Not sure
Refused

NH Module 8: Years of Healthy Life

S01. Are you limited in any way in any activities because of any impairment or health problem ?

a. Yes
b. No
Don't know/Not sure
Refused

S02. What is the major impairment or health problem that limits your activities?

a. Arthritis or Rheumatism
b. Back or Neck problem
c. Fractures; bone or joint injury
d. Walking problem
e. Lung or breathing problem
f. Hearing problem
g. Eye or vision problem
h. Heart problem
i. Stroke problem
j. Hypertension or High Blood Pressure
k. Diabetes
l. Cancer
m. Depression, anxiety or emotional problem
n. Other impairment or problem
Don't know/Not sure
Refused

S03. For how long have your activities been limited because of your major impairment or health problem ?

a. Enter number of days, weeks, months or years
Don't know/Not Sure
Refused